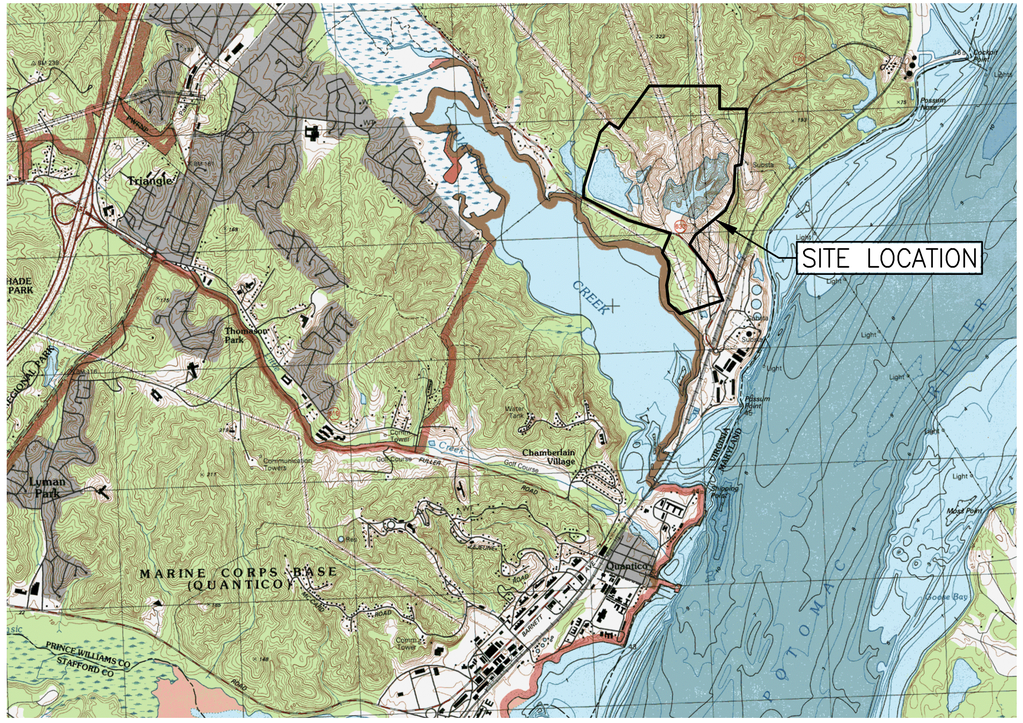
ATTACHMENT 2
Closure Design Plans

gai consultants
transforming ideas into reality



MAP REFERENCE:
USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES:
QUANTICO, VIRGINIA–MARYLAND, 1994

VICINITY MAP
1" = 2000'

SCALE: 1" = 2000'

2000 0 2000 4000

COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES

POSSUM POINT POWER STATION
PRINCE WILLIAM COUNTY, VIRGINIA

PREPARED FOR:
DOMINION
5000 DOMINION BOULEVARD
GLEN ALLEN, VIRGINIA 23060

PREPARED BY:
GAI CONSULTANTS, INC.
4198 COX ROAD, SUITE 114,
GLEN ALLEN, VIRGINIA 23060

SOLID WASTE DISPOSAL FACILITY PART B PERMIT APPLICATION DECEMBER 7, 2015 NOT FOR CONSTRUCTION

DRAWING INDEX

GAI DRAWING FILE NUMBER	SHEET NUMBER	DRAWING TITLE
C150132-00-000-C-D1-001	1 OF 65	TITLE SHEET
C150132-00-000-C-D1-002	2 OF 65	GENERAL NOTES
C150132-00-000-C-D1-002	3 OF 65	PROJECT CHECKLISTS AND LEGENDS
C150132-00-000-C-D1-004	4 OF 65	EXISTING CONDITIONS PLAN (1 OF 2)
C150132-00-000-C-D1-004	5 OF 65	EXISTING CONDITIONS PLAN (2 OF 2)
C150132-00-000-C-D1-006	6 OF 65	SITE MASTER/ACCESS PLAN (1 OF 2)
C150132-00-000-C-D1-006	7 OF 65	SITE MASTER/ACCESS PLAN (2 OF 2)
C150132-00-000-C-D1-008	8 OF 65	SOIL BORROW AREA DEVELOPMENT PLAN
C150132-00-000-C-D1-009	9 OF 65	PHASE 1 GRADING PLAN – POND A,B,C CLOSURE
C150132-00-000-C-D1-010	10 OF 65	SANITARY SEWER RELOCATION PLAN – POND A,B,C CLOSURE
C150132-00-000-C-D1-011	11 OF 65	PHASE 2 GRADING PLAN – POND A,B,C CLOSURE
C150132-00-000-C-D1-012	12 OF 65	PHASE 3 GRADING PLAN – POND A,B,C CLOSURE
C150132-00-000-C-D1-013	13 OF 65	OVERALL PHASE 1 GRADING PLAN – POND D CLOSURE
C150132-00-000-C-D1-014	14 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (1 OF 7)
C150132-00-000-C-D1-014	15 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (2 OF 7)
C150132-00-000-C-D1-014	16 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (3 OF 7)
C150132-00-000-C-D1-014	17 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (4 OF 7)
C150132-00-000-C-D1-014	18 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (5 OF 7)
C150132-00-000-C-D1-014	19 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (6 OF 7)
C150132-00-000-C-D1-014	20 OF 65	PHASE 1 GRADING PLAN ENLARGEMENT – POND D CLOSURE (7 OF 7)
C150132-00-000-C-D1-021	21 OF 65	OVERALL PHASE 2 GRADING PLAN – POND D CLOSURE
C150132-00-000-C-D1-022	22 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (1 OF 7)
C150132-00-000-C-D1-022	23 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (2 OF 7)
C150132-00-000-C-D1-022	24 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (3 OF 7)
C150132-00-000-C-D1-022	25 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (4 OF 7)
C150132-00-000-C-D1-022	26 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (5 OF 7)
C150132-00-000-C-D1-022	27 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (6 OF 7)
C150132-00-000-C-D1-022	28 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND D CLOSURE (7 OF 7)
C150132-00-000-C-D1-029	29 OF 65	OVERALL PHASE 3 GRADING PLAN – POND D CLOSURE
C150132-00-000-C-D1-030	30 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (1 OF 7)
C150132-00-000-C-D1-030	31 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (2 OF 7)
C150132-00-000-C-D1-030	32 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (3 OF 7)
C150132-00-000-C-D1-030	33 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (4 OF 7)

DRAWING INDEX

GAI DRAWING FILE NUMBER	SHEET NUMBER	DRAWING TITLE
C150132-00-000-C-D1-030	34 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (5 OF 7)
C150132-00-000-C-D1-030	35 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (6 OF 7)
C150132-00-000-C-D1-030	36 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND D CLOSURE (7 OF 7)
C150132-00-000-C-D1-037	37 OF 65	OVERALL PHASE 1 GRADING PLAN – POND E CLOSURE
C150132-00-000-C-D1-038	38 OF 65	OVERALL PHASE 2 GRADING PLAN – POND E CLOSURE
C150132-00-000-C-D1-039	39 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND E CLOSURE (1 OF 3)
C150132-00-000-C-D1-039	40 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND E CLOSURE (2 OF 3)
C150132-00-000-C-D1-039	41 OF 65	PHASE 2 GRADING PLAN ENLARGEMENT – POND E CLOSURE (3 OF 3)
C150132-00-000-C-D1-042	42 OF 65	OVERALL PHASE 3 GRADING PLAN – POND E CLOSURE
C150132-00-000-C-D1-043	43 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND E CLOSURE (1 OF 3)
C150132-00-000-C-D1-043	44 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND E CLOSURE (2 OF 3)
C150132-00-000-C-D1-043	45 OF 65	PHASE 3 GRADING PLAN ENLARGEMENT – POND E CLOSURE (3 OF 3)
C150132-00-000-C-D1-046	46 OF 65	SITE CROSS SECTIONS (1 OF 4)
C150132-00-000-C-D1-046	47 OF 65	SITE CROSS SECTIONS (2 OF 4)
C150132-00-000-C-D1-046	48 OF 65	SITE CROSS SECTIONS (3 OF 4)
C150132-00-000-C-D1-046	49 OF 65	SITE CROSS SECTIONS (4 OF 4)
C150132-00-000-C-D1-050	50 OF 65	DETAILS – CAP SYSTEM (1 OF 2)
C150132-00-000-C-D1-050	51 OF 65	DETAILS – CAP SYSTEM (2 OF 2)
C150132-00-000-C-D1-052	52 OF 65	DETAILS – STORMWATER (1 OF 2)
C150132-00-000-C-D1-053	53 OF 65	DETAILS – STORMWATER (2 OF 2)
C150132-00-000-C-D1-054	54 OF 65	DETAILS – MISCELLANEOUS (1 OF 3)
C150132-00-000-C-D1-055	55 OF 65	DETAILS – MISCELLANEOUS (2 OF 3)
C150132-00-000-C-D1-056	56 OF 65	DETAILS – MISCELLANEOUS (3 OF 3)
C150132-00-000-C-D1-057	57 OF 65	DETAILS – EROSION AND SEDIMENT CONTROL
C150132-00-000-C-D1-058	58 OF 65	DRAINAGE AREA MAP – PREDEVELOPMENT (1 OF 2)
C150132-00-000-C-D1-058	59 OF 65	DRAINAGE AREA MAP – PREDEVELOPMENT (2 OF 2)
C150132-00-000-C-D1-060	60 OF 65	DRAINAGE AREA MAP – POST-DEVELOPMENT (1 OF 2)
C150132-00-000-C-D1-060	61 OF 65	DRAINAGE AREA MAP – POST-DEVELOPMENT (2 OF 2)
C150132-00-000-C-D1-062	62 OF 65	RESOURCE PROTECTION AREAS METES AND BOUNDS (1 OF 2)
C150132-00-000-C-D1-062	63 OF 65	RESOURCE PROTECTION AREAS METES AND BOUNDS (2 OF 2)
C150132-00-000-C-D1-064	64 OF 65	UNIT PRICE LISTS (1 OF 2)
C150132-00-000-C-D1-064	65 OF 65	UNIT PRICE LISTS (2 OF 2)

REVISION RECORD

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing as manual drafting methods.

GAI CAD FILE PATH: J:\Energy\2015\C150132\00 – DOM – Possum Point PS_CCR\CAD\Production_Drawings\C150132-00-000-C-D1-001.dwg PLOTTED ON: 12/22/2015 3:46:29 PM PLOTTED BY: Michael Doyle PLOT FILE: GAI.stb

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

gai consultants

DRAWING TITLE
TITLE SHEET

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 1 OF 65

REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-001

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 001

PERMIT

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. THE OWNER/DEVELOPER MUST NOTIFY THE DEPARTMENT OF PUBLIC WORKS AT (434) 792-7070 AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH APPLICABLE COUNTY ORDINACES AND POLICIES.

2. THE OWNER/DEVELOPER GRANTS THE RIGHT-OF-ENTRY ONTO THIS PROPERTY TO THE DESIGNATED PRINCE WILLIAM COUNTY PERSONNEL FOR THE PURPOSE OF INSPECTING AND MONITORING FOR COMPLIANCE WITH TITLE 10.01, CHAPTER 5, ARTICLE 4 OF THE CODE OF VIRGINIA EROSION AND SEDIMENT CONTROL LAW AND THE DESIGN AND CONSTRUCTION STANDARDS MANUAL SECTION 750.04.C.

3. ALL EROSION CONTROL MEASURES SHOWN ON THE APPROVED PLAN MUST BE IN PLACE AND INSPECTED AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS PRIOR TO CLEARING AND STRIPPING OF TOPSOIL, OR GRADING.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION, AS DETERMINED BY PRINCE WILLIAM COUNTY.

6. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBANCE ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL COMPLETE AND ADEQUATE STABILIZATION IS ACHIEVED.

7. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING OR WATER TREATMENT DEVICE.

8. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS AND TO THE PRINCE WILLIAM COUNTY DESIGN AND CONSTRUCTION STANDARDS MANUAL.

9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES AT ALL TIMES.

10. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES AT LEAST ONCE EVERY 2 WEEKS AND WITHIN 48 HOURS FOLLOWING ANY RUNOFF PRODUCING STORMEVENT. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

    a. SEDIMENT BASINS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT BUILDUP REACHES THE CLEANOUT ELEVATION INDICATED IN THE DETAILS OF THE PLAN DRAWINGS. SEDIMENT SHALL BE DISPOSED OF IN SUITABLE AREAS AND IN SUCH A MANNER THAT IT WILL NOT ERODE OR CAUSE SEDIMENTATION PROBLEMS.

    b. THE BASIN EMBANKMENTS WILL BE CHECKED REGULARLY TO ENSURE THAT THEY ARE STRUCTURALLY SOUND AND HAVE NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.

    c. EMERGENCY SPILLWAYS WILL BE CHECKED REGULARLY TO ENSURE THAT THE LININGS ARE WELL ESTABLISHED AND EROSION RESISTANT.

    d. SEDIMENT TRAPS WILL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN VOLUME OF THE WET STORAGE. SEDIMENT REMOVED FROM THE TRAP SHALL BE DISPOSED OF IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT DOES NOT ERODE OR CAUSE SEDIMENTATION PROBLEMS.

    e. RIPRAP PROTECTION WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE AND SCOUR. RUNOFF THAT IS SEDIMENT-LADEN MUST BE CONSIDERED WHEN CONSTRUCTION TAKES PLACE.

    f. SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC, AND IMMEDIATELY AFTER EACH RUNOFF PRODUCING RAINFALL EVENT AND AT LEAST DAILY DURING PROLONGED RAINFALL. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF THE HEIGHT OF THE BARRIER.

    g. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. AREAS WILL BE FERTILIZED AND RESEEDED AS NEEDED.

    h. STREAM DIVERSIONS AND STORM CONVEYANCE CHANNELS SHALL BE INSPECTED REGULARLY AND WITHIN 48 HOURS FOLLOWING A RUNOFF PRODUCING RAIN EVENT TO ENSURE THEY ARE FUNCTIONING PROPERLY AND THAT THE INTEGRITY OF THE LININGS ARE NOT IMPAIRED.

11. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES MUST BE MADE IMMEDIATELY AFTER THE INSPECTION.

12. SEDIMENT BASINS, SEDIMENT TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT, IF NEEDED, SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL, BY SEEDING AND MULCHING IMMEDIATELY FOLLOWING INSTALLATION.

13. SEDIMENT TRAPS AND BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN AS FOLLOWS:

    SEDIMENT TRAPS
    - ONLY CONTROL DRAINAGE AREAS LESS THAN 3 ACRES
    - MINIMUM STORAGE CAPACITY OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA

    SEDIMENT BASINS:
    - CONTROL DRAINAGE AREAS GREATER THAN OR EQUAL TO 3 ACRES
    - MINIMUM STORAGE CAPACITY OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA
    - THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION

14. SOIL STABILIZATION

    a. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.

    b. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS.

    c. PERMANT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN SIX (6) MONTHS.

    d. SEEDING AND SELECTION OF THE SEED MIXTURE SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK STANDARD AND SPECIFICATION 3.32 AND AS INDICATED ON THESE PLANS.

    e. ROADS AND PARKING AREAS SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADE IS REACHED.

15. ROCK CHECK DAMS SHOULD BE INSPECTED AFTER EACH RUNOFF-PRODUCING STORM EVENT AND SEDIMENT SHOULD BE REMOVED AFTER LEVELS HAVE REACHED ONE HALF THE ORIGINIAL HEIGHT OF DAM.

16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY PRINCE WILLIAM COUNTY INSPECTORS. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

17. DURING CONSTRUCTION, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. TEMPORARY PROTECTION AND PERMANENT STABILIZATION SHALL BE APPLIED TO ALL SOIL STOCKPILES ON SITE AND BORROW AREAS OR SOIL INTENTIONALLY TRANSPORTED OFF SITE.

18. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS:
    - UNIFORM
    - MATURE ENOUGH TO SURVIVE
    - WILL INHIBIT EROSION

19. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

20. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

21. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.

22. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

23. ALL STORM SEWER INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE STORMWATER CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

24. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND THE RECEIVING CHANNEL.

25. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED:
    - PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT, AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
    - NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF THE CAUSEWAYS AND COFFERDAMS.
    - EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER DETAILS.

26. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX (6) MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

27. ALL APPLICALBE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

28. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

29. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
    - NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    - EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    - EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    - MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
    - RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION CONTROL REGUALTIONS FOR PRINCE WILLIAM COUNTY, (SECTION 700-ENVIRONMENTAL SYSTEMS).
    - EXCAVATIONS SHALL COMPLY WITH APPLICABLE SAFETY REGULATIONS.

30. STORMWATER MANAGEMENT - PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION, AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY, AND PEAK FLOW RATE, FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION, IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
    - CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE, NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE, OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, A DOWNSTREAM STABILITY ANALYSIS AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
    - ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED:
      + NATURAL CHANNELS - USE 2-YEAR STORM EVENT
      + MANMADE CHANNELS - USE 2-, 10-, AND 25-YEAR STORM EVENT
      + PIPE AND PIPE SYSTEMS - USE 10-YEAR STORM EVENT
    - IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL PROVIDE CHANNEL, PIPE, OR PIPE SYSTEM IMPROVEMENTS OR PROVIDE A COMBINATION OF CHANNEL IMPROVEMENTS, SITE DESIGN, STORMWATER DETENTION, OR OTHER MEASURES THAT ARE SATISFACTORY TO THE PROGRAM AUTHORITY TO PREVENT DOWNSTREAM EROSION.
    - PROVIDE EVIDENCE OF PERMISSION TO MAKE IMPROVEMENTS.
    - IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
    - OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILTIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
    - INCREASED VOLUMES OF SHEET FLOWS, THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTIES, SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
    - IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT AS A WHOLE SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT.
    - ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER THAT MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

31. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDNG TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30, EROSION AND SEDIMENT CONTROL REGULATIONS.

32. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

33. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS:
    - PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE
    - WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY
    - SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING, AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

34. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

35. RPA AND FLOOD PLAIN LIMITS SHALL BE CLEARLY MARKED IN THE FIELD BY FLAGS, SIGNS, ETC.

36. TREES SHOULD BE CLEARED AS NECESSARY WITHIN THE LIMITS OF DISTURBANCE TO COMPLETE THE WORK. THE LIMITS OF CLEARING SHOULD BE MINIMIZED TO REDUCE THE AMOUNT OF DISTURBANCE.

37. TREE SAVE AREAS SHALL BE CLEARLY MARKED IN THE FIELD BY ORANGE SAFETY FENCE. APPROPRIATE TREE PRESERVATION SIGNS (WATERPROOF) TO IDENTIFY TREE PRESERVATION AREAS SHALL BE LOCATED ON TREE PROTECTION FENCING (INCLUDES SUPER SILT FENCING) AND SHOULD ALTERNATE ENGLISH AND SPANISH EVERY 30 FEET.

38. ORANGE SAFETY FENCE MUST BE INSTALLED AROUND ALL SILT TRAPS AND SEDIMENT BASINS IMMEDIATELY AFTER THEIR FACILITIES ARE CONSTRUCTED.

EROSION CONTROL NARRATIVE:

1. PROJECT DESCRIPTION:

   THE PURPOSE OF THIS PLAN IS TO SHOW THE PLANNED WORK ASSOCIATED WITH THE POND CLOSURES AT THE DOMINION POSSUM POINT POWER STATION LOCATED IN PRINCE WILLIAM COUNTY. WORK FOR THE PROPOSED CLOSURE PLAN IS ANTICIPATED TO OCCUR OVER THE NEXT THREE (3) YEARS. THE GENERAL CONSTRUCTION PLANS INCLUDE DEWATERING THE PONDS, MECHANICALLY DREDGING CCR FROM PONDS A, B, C, AND E, REGRADING THE AREA WITHIN THE PONDS, MODIFICATION OF IMPOUNDING STRUCTURES, CONSTRUCTION OF STORMWATER AND EROSION AND SEDIMENT CONTROL MEASURES, REMOVAL OF TEMPORARY SEDIMENTATION BASINS, AND POST-CLOSURE VEGETATION. THE PROPOSED WORK IS ANTICIPATED TO DISTURB UP TO 120 ACRES OF EXISTING POND AREA, AND 24.61 ACRES OF NEW AREA IN THE PROPOSED BORROWED AREAS.

2. EXISTING SITE CONDITIONS:

   THE POSSUM POINT POWER STATION IS LOCATED NEAR DUMFRIES, VA AND IS ACCESSED BY POSSUM POINT ROAD (ROUTE 633) AND IS ADJACENT TO THE POTOMAC RIVER AND QUANTICO CREEK. THE STATION SLUICED CCR INTO THE CCR PONDS UNTIL 2003, WHEN THE STATION STOPPED USING COAL AS FUEL. THE CCR PONDS AT THE STATION CONSIST OF THE FOLLOWING IMPOUNDMENT AREAS: POND A, POND B, POND C, POND D, AND POND E. THE CCR PONDS COVER A TOTAL OF APPROXIMATELY 120 ACRES. DOMINION HAS REQUESTED FOR ATLERATION PERMITS FROM THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR) FOR THE IMPOUNDING STRUCTURES FOR EACH POND AND DISCHARGE FROM THE PONDS IS PERMITTED UNDER THE STATION'S INDUSTRIAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. VA0002071. THE PONDS ARE DESCRIBED BELOW:

   a. PONDS A, B, AND C COVER AN AREA OF APPROXIMATELY 18 ACRES. PONDS A, B, AND C WERE CONSTRUCTED IN 1955 AND UTILIZED UNTIL THE 1960s. THE DAM THAT IMPOUNDS PONDS A, B, AND C IS CONSIDERED A SINGLE STRUCTURE. HOWEVER, THERE ARE THREE DISTINCT AREAS WITHIN THE IMPOUNDMENT THAT ARE REFERRED TO AS POND A, POND B, AND POND C. AS OF AUGUST 2015, THE CCR IN PONDS A, B, AND C ARE BEING DREDGED AND PLACED IN POND D IN ACCORDANCE WITH VPDES PERMIT NO. VA0002071. DRAINAGE FROM PONDS A, B, AND C IS BEING PUMPED TO POND D FOR STORAGE BEFORE IT CAN BE DISCHARGED IN ACCORDANCE WITH VPDES PERMIT NO. VA0002071 .

   b. POND D COVERS AN AREA OF APPROXIMATELY 64 ACRES. POND D WAS CONSTRUCTED IN 1988 TO REPLACE AN EXISTING CCR POND D WHICH WAS LOCATED IN THE SAME LOCATION. CCR GENERATED BY THE STATION WERE SLUICED INTO POND D UNTIL 2003. FREE WATER IN POND D COVERS AN AREA OF APPROXIMATELY 29 ACRES. THE REMAINDER OF THE POND AREA IS VEGETATED WITH WEEDS AND BRUSH AND SMALL TREES. DRAINAGE FROM THE POND D WATERSHED IS BEING STORED IN POND D BEFORE IT CAN BE DISCHARGED TO A PERMITTED OUTFALL IN ACCORDANCE WITH VPDES PERMIT NO. VA0002071.

   c. POND E COVERS AN AREA OF APPROXIMATELY 38 ACRES. POND E WAS CONSTRUCTED IN 1967 AND WAS UTILIZED FOR CCR DISPOSAL UNTIL 2003. AS OF JUNE 2015, THE CCR IN POND E IS BEING DREDGED AND PLACED IN POND D IN ACCORDANCE WITH VPDES PERMIT NO. VA0002071. DRAINAGE FROM PONDS A, B, AND C IS BEING PUMPED TO POND D FOR STORAGE BEFORE IT CAN BE DISCHARGED IN ACCORDANCE WITH VPDES PERMIT NO. VA0002071.

3. ADJACENT AREAS:

   THE PROPOSED SITE IS BOUNDED BY QUANTICO CREEK ON THE SOUTH AND AN UNNAMED TRIBUTARY OF QUANTICO CREEK ON THE WEST. EAST OF THE SITE IS COCKPIT POINT ROAD (ROUTE 783). TO THE NORTH OF THE SITE IS PRIVATE PROPERTY THAT IS HEAVILY WOODED. THE MAJORITY OF THE CONTRIBUTING DRAINAGE AREA INTO THE PONDS INCLUDE VEGETATED AREAS CONSISTING OF BRUSH AND FORESTLAND.

4. OFF-SITE AREAS:

   SOIL BORROW AREAS WILL BE LOCATED WITHIN THE PROPERTY AND ARE COVERED UNDER THIS PLAN. THERE ARE NO OFF-SITE AREAS PROPOSED TO BE DISTURBED.

5. SOILS:

   ACCORDING TO THE NRCS WEB SOIL SURVEY REPORT FOR THE PROJECT AREA, THE SOILS AT THE SITE CONTAIN MOSTLY HYDROLOGIC SOIL GROUP TYPE A AND TYPE B SOILS, WITH TYPE B SOILS BEING PREDOMINANT. A LESSER PORTION OF THE PROJECT CONSISTS OF TYPE D SOILS. TYPE A SOILS EXIST IN THE POND EMBANKMENTS AND AREAS IMMEDIATELY ADJACENT TO THE PONDS. TYPE B SOILS MAKE UP THE MAJORITY OF THE CONTRIBUTING DRAINAGE AREA UPLAND OF THE PONDS. GROUP A SOILS HAVE A HIGH INFILTRATION RATE AND LOW RUN-OFF POTENTIAL WHEN THOUROUGHLY WETTED. THESE SOILS CONSIST MAINLY OF DEEP, WELL DRAINED TO EXCESSIVELY DRAINED SANDS OR GRAVELLY SANDS. THESE SOILS HAVE A HIGH RATE OF WATER TRANSMISSION (>0.3 IN/HR). GROUP B SOILS HAVE MODERATE INFILTRATION RATES WHEN THOROUGHLY WETTED AND CONSIST CHIEFLY OF MODERATELY DEEP TO DEEP, MODERATELY WELL TO WELL DRAINED SOILS WITH MODERATELY FINE TO MODERATELY COARSE TEXTURES. THESE SOILS HAVE A MODERATE RATE OF WATER TRANSMISSION (0.15-0.30 IN/HR). GROUP C SOILS HAVE LOW INFILTRATION RATES WHEN THROUGHLY WETTED AND CONSIST CHIEFLY OF SOILS WITH LAYERS THAT IMPEDE DOWNWARD MOVEMENT OF WATER AND SOILS WITH MODERATELY FINE TO FINE TEXTURES. THESE SOILS HAVE A LOW RATE OF WATER TRANSMISSION (0.05-0.15 IN/HR). GROUP D SOILS HAVE HIGH RUNOFF POTENTIAL. THEY HAVE VERY LOW INFILTRATION RATES WHEN THOROUGHLY WETTED AND CONSISTS CHIEFLY OF CLAY SOILS WITH HIGH SWELLING POTENTIAL, A PERMANENT HIGH WATER TABLE, A CLAY PAN OR CLAY LAYER AT OR NEAR THE SURFACE, AND SHALLOW NEARLY IMPERVIOUS MATERIAL. THESE SOILS HAVE A LOW RATE OF TRANSMISSION (0-0.05 IN/HR).

6. CRITICAL AREAS:

   SEVERAL LOCATIONS EXIST WHERE THE PROPOSED LIMITS OF DISTRUBANCE (LOD) EXTEND TO WITHIN 10 FEET OF WETLAND AREAS AND THE FEMA FLOODPLAIN BOUNDARY. THE LOD ALSO ENCROACHES INTO THE RPA IN SEVERAL LOCATIONS. THESE ARE CONSIDERED CRITICAL AREAS DUE TO THE POTENTIAL DAMAGE OF SILTATION WITHIN THE WETLANDS, RPA, AND FLOODPLAIN. OTHER CRITICAL AREAS ON THE SITE INCLUDE STEEP SLOPE AREAS ASSOCIATED WITH THE POND EMBANKMENTS AND THE UPLAND PERIMETERS OF THE WORK AREA. THESE ARE CONSIDERED CRITICAL AREAS DUE TO THE INCREASED POTENTIAL FOR EROSION.

7. EROSION AND SEDIMENT CONTROL MEASURES:

   UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

STRUCTURAL PRACTICES:

8. TEMPORARY STONE CONSTRUCTION ENTRANCE - 3.02

   A STONE PAD, WILL BE INSTALLED AT POINTS OF VEHICULAR INGRESS AND EGRESS, TO REDUCE THE SOIL TRANSPORTED ONTO PUBLIC ROADS AND OTHER PAVED AREAS.

9. SILT FENCE - 3.05

   SILT FENCES WILL BE CONSTRUCTED ALONG THE PERIMETER OF THE PROJECT TO INTERCEPT AND DETAIN RUN-OFF SEDIMENT FROM SMALL AREAS NOT BEING DIVERTED TO SEDIMENT BASINS OR OTHER STRUCTURAL CONTROLS. TO DECREASE FLOW VELOCITIES, SILT FENCES WILL ALSO BE CONSTRUCTED ALONG UPSTREAM AREAS OF THE SITE TO INHIBIT EROSION POTENTIAL. WIRE SUPPORTED SILT FENCE (SUPER SILT FENCE) IN TWO LAYERS WILL BE USED FOR PERIMETER RUNOFF AND FOR CRITICAL AREAS.

10. STORM DRAIN INLET PROTECTION -3.07

    AS NECESSARY, EXISTING STORM DRAIN INLETS WILL BE PROTECTED FROM RUN-OFF BY USE OF SILT FENCE, GRAVEL/WIRE MESH, OR CATCH BASIN INSERTS. PROTECTION IS LIMITED TO DRAINAGE AREAS NOT EXCEEDING ONE (1) ACRE AND IS NOT INTENDED TO CONTROL LARGE, CONCENTRATED STORMWATER FLOWS. THERE ARE NO NEW STORM DRAIN INLETS THAT ARE PROPOSED TO BE INSTALLED ON THE SITE.

11. CULVERT INLET PROTECTION - 3.08

    A SEDIMENT FILTER INSTALLED AT THE INLET OF A STORM SEWER CULVERT TO PREVENT THE ENTERING, ACCUMULATING, OR TRANSFERRING OF SEDIMENT THROUGH THE CULVERT. THIS MEASURE ALSO ALLOWS FOR EROSION CONTROL TO BE INPLACE DURING PHASES OF THE PROJECT WHERE ELEVATIONS AND DRAINAGE PATTERNS ARE CHANGING, AND WHERE ORIGINAL CONTROLS ARE INEFFECTIVE.

12. TEMPORARY DIVERSION DIKE - 3.09

    A RIDGE OF COMPACTED SOIL WILL BE CONSTRUCTED AT THE TOP OR BASE OF A SLOPING DISTURBED AREA TO DIVERT OFF-SITE RUNOFF AWAY FROM UNPROTECTED SLOPES AND TO A STABILIZED OUTLET, OR TO DIVERT SEDIMENT-LADEN RUNOFF TO A SEDIMENT TRAPPING STRUCTURE.

13. TEMPORARY SEDIMENT TRAP - 3.13

    TEMPORARY SEDIMENT TRAPS, SMALL PONDING AREAS, WILL BE CONSTRUCTED TO FILTER STORMWATER FROM THE SITE.

14. TEMPORARY SEDIMENT BASIN - 3.14

    A TEMPORARY BARRIER OR DAM WITH A CONTROLLED STORMWATER RELEASE STRUCTURE WILL BE CONSTRUCTED TO FILTER STORMWATER FROM THE SITE.

15. STORMWATER CONVEYANCE CHANNELS - 3.17

    PERMANENT CHANNELS, THAT CARRY CONCENTRATED FLOWS AND RESIST EROSION, WILL BE USED TO CONVEY STORMWATER TO SEDIMENT BASINS.

16. OUTLET PROTECTION - 3.18

    RIPRAP CHANNEL SECTIONS AND/OR STILLING BASINS WILL BE INSTALLED BELOW STORM DRAIN OUTLETS TO DECREASE EROSION AND UNDER-CUTTING, AND REDUCE VELOCITIES BEFORE ENTERING RECEIVING CHANNELS.

17. ROCK CHECK DAMS - 3.20

    SMALL, TEMPORARY STONE DAMS WILL BE INSTALLED AT SET INTERVALS THROUGHOUT CHANNELS TO REDUCE THE VELOCITY OF CONCENTRATED FLOWS, REDUCING THE EROSION OF THE CHANNELS.

18. SOIL STABILIZATION BLANKETS AND MATTING - 3.36

    A PROTECTIVE BLANKET OR SOIL STABILIZATION MAT WILL BE INSTALLED FOR PREPARED PLANTNG OF STEEP SLOPES AND CHANNELS.

19. VEGETATIVE PRACTICES:

    TOPSOILING - 3.30

    TOPSOIL WILL BE PRESERVED AND USED TO ESTABLISH A SUITABLE MEDIUM FOR VEGETATION, WHICH WILL BE USED TO STABILZE DISTURBED AREAS.

    TEMPORARY SEEDING -3.31

    RAPIDLY GROWING PLANTS, APPROPRAITE TO THE AREA, WILL BE APPLIED TO AREAS NOT RECEIVING FINAL GRADING FOR THIRTY (30) DAYS TO ONE (1) YEAR.

    PERMENENT SEEDING - 3.32

    PERMANENT VEGETATIVE COVER WILL BE APPLIED TO FINE GRADED AREAS OR AREAS THAT WILL BE LEFT DORMANT FOR 6 MONTHS OR MORE.

    MULCHING - 3.35

    PLANT RESIDUALS OR OTHER SUITABLE MATERIALS WILL BE APPLIED TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES.

20. MANAGEMENT STRATEGIES:

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE WITH APPROPRIATE EROSION CONTROL MEASURES IN-PLACE. SEE "SEQUENCE OF CONSTRUCTION" ON THIS SHEET FOR FURTHER DETAILS.
2. REFER TO THE "GENERAL EROSION AND SEDIMENT CONTROL NOTES" FOR ADDITIONAL INFORMATION ON THE SCHEDULING OF EROSION CONTROL MEASURES AND SEEDING.
3. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

21. PERMANENT AND TEMPORARY STABILIZATION:

    SEEDING WILL BE IN ACCORDANCE WITH THE TEMPORARY AND PERMANENT CHARTS PROVIDED BELOW, UNLESS OTHERWISE NOTED IN THE TECHNICAL SPECIFICATIONS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE LEFT DORMANT FOR MORE THAN SIX (6) MONTHS.

22. STORMWATER MANAGEMENT:

    THE STORMWATER MANAGEMENT SYSTEM HAS BEEN DESIGNED TO HANDLE THE 25-YR STORM PER APPLICABLE SOLID WASTE REGULATIONS AND PER COUNTY REQUIREMENTS. THE PERMANENT CONVEYANCE CHANNEL OVER THE EMBANKMENT OF POND D HAS BEEN DESIGNED TO CONTAIN THE PMP STORM, PER APPLICABLE VDCR DAM SAFETY REGULATIONS. THE POND D-E SYSTEM, AS WELL AS PONDS A, B, AND C. ARE DESIGNED TO DISCHARGE INTO TIDAL FLOODPLAINS, WITHIN WHICH WATER LEVELS ARE GOVERNED BY BACKWATER FROM THE POTOMAC RIVER. DUE TO THIS DISCHARGE CONDITION, AND PER DISCUSSION WITH PWC REPRESENTATIVES, STORMWATER QUANTITY MEASURES (i.e. STORMWATER BASINS) ARE NOT REQUIRED TO REDUCE THE PEAK RUNOFF RATE OR VOLUME. PERMANENT OUTLET STRUCTURES ARE DESIGNED TO INCORPORATE EROSION PROTECTION AND ENERGY DISSIPATION FOR THE 25-YEAR, 24-HOUR STORM, EXCEEDING THE REQUIREMENTS OF THE PWC DSCM FOR CHANNEL AND FLOOD PROTECTION. SEE THE HYDROLOGIC AND HYDRAULIC CALCULATION BOOKLET PREPARED FOR THIS EROSION AND SEDIMENT CONTROL PLAN FOR THE EXISTING CONDITIONS HYDROLOGY AND A PRE-DEVELOPMENT VS POST-DEVELOPMENT DISCHARGE COMPARISON AT THE DOWNSTREAM PROPERTY BOUNDARY STUDY POINT.

23. MAINTENANCE SCHEDULE:

    ALL INSPECTIONS FOR THE SITE WILL BE MADE WEEKLY AND AFTER EACH RUNOFF PRODUCING RAIN EVENT. IN THE EVENT OF DAMAGE TO THE EROSION OR SEDIMENT CONTROL MEASURES, REPAIRS WILL BE MADE IMMEDIATELY. SEDIMENT TRAPPING DEVICES WILL BE CLEANED OUT WHEN SEDIMENT REACHES THE CLEANOUT POINT.

24. SOIL STOCKPILES AND BORROW AREAS:

    SOIL WILL BE OBTAINED FROM ON-SITE BORROW AREAS AND WILL BE INCORPORATED INTO THE SUBGRADE AND THE CAP COVER SYSTEM. TOPSOIL WILL BE STORED IN TEMPORARY STOCKPILES FOR REDISTRIBUTION INTO THE FINAL SURFACE. EROSION AND SEDIMENT CONTROLS ASSOCIATED WITH THE TEMPORARY SOIL STOCKPILES AND BORROW AREAS WILL COMPLY WITH THE REQUIREMENTS OF THIS PLAN.

25. SEQUENCE OF CONSTRUCTION (SOC)

    THE FOLLOWING IS A COMPILATION OF THE SOCS FOR THE CONSTRUCTION PROJECTS ANTICIPATED IN THE POND CLOSURE PLANS. THESE PROJECTS WILL GENERALLY OCCUR IN THE WRITTEN ORDER BELOW OVER THE NEXT 3 YEARS.

    CONSTRUCTION ENTRANCES WILL BE CONSTRUCTED AS NEEDED. THE MAJORITY OF THE WORK WILL BE CONDUCTED WITHIN THE SITE. AS SUCH, VEHICLES MUST PASS OVER GRAVEL ROADS INTERIOR TO THE SITE PRIOR TO ENTERING PUBLIC ROADS AND AN EQUIPMENT WASH FACILITY WILL BE AVAILABLE FOR USE, IF NEEDED.

    SURFACE IMPOUNDMENT E SOC:

    ITEMS 1 THROUGH 6 ARE OPERATIONAL ACTIVITIES REGULATED UNDER VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) INDUSTRIAL DISCHARGE PERMIT AND ARE NOT SUBJECT TO PRINCE WILLIAM COUNTY (PWC) SITE PLAN APPROVAL.

1. INSTALL TEMPORARY FACILITIES.
2. INSTALL WATER PUMPING SYSTEM TO PUMP WATER FROM POND E TO POND D.
3. DEWATER POND E.
4. BEGIN MECHANICALLY DREDGING CCR FROM POND E AND PLACE IN A TEMPORARY STOCKPILE IN POND D.
5. INSTALL WATER TREATMENT SYSTEM.
6. BEGIN INITIAL GRADING OF POND E, WITHIN THE LIMITS OF THE POND E EMBANKMENT.
7. PARTIALLY REMOVE POND E EMBANKMENT AND USE AS FILL WITHIN THE LIMITS OF POND E
8. CONSTRUCT E&S CONTROLS AROUND POND E. CONSTRUCT TEMPORARY SEDIMENT BASIN (BASIN E-1).
9. INSTALL DRAINAGE CHANNELS WITHIN POND E, INCLUDING CHANNEL LININGS AND CHECK DAMS.
10. INSTALL DRAINAGE AND E&S CONTROLS FOR BORROW AREA 2.
11. DEVELOP BORROW AREA 2.
12. PLACE FILL AND COMPLETE FINAL GRADING OF THE POND E SURFACE, UPGRADIENT OF BASIN E-1.
13. ADD SOIL AMENDMENTS, SEED AND STABILZE THE POND E SURFACE CONCURRENT WITH FINAL GRADING ACTIVITIES.
14. REMOVE TEMPORARY SEDIMENT BASIN (BASIN E-1).
15. REMOVE A PORTION OF THE POND E EMBANKMENT AND EXTEND DRAINAGE CHANNELS TO DISCHARGE OFFSITE.
16. ADD SOIL AMENDMENTS, SEED AND STABILZE THE REGRADED BASIN E-1 SURFACE.
17. REMOVE PERIMETER CONTROLS FROM AROUND POND E UPON RECEIVING PERMISSION FROM THE PLAN APPROVING AUTHORITY.

PONDS A, B, AND C:

ITEMS 1 THROUGH 5 ARE OPERATIONAL ACTIVITIES REGULATED UNDER VPDES INDUSTRIAL DISCHARGE PERMIT AND ARE NOT SUBJECT TO PWC SITE PLAN APPROVAL.

1. INSTALL TEMPORARY FACILITIES.
2. INSTALL WATER PUMPING SYSTEM TO PUMP WATER FROM PONDS A, B, AND C TO POND D.
3. DEWATER PONDS A, B, AND C.
4. BEGIN MECHANICALLY DREDGING CCR FROM PONDS A, B, AND C AND PLACE IN A TEMPORARY STOCKPILE IN POND D.
5. BEGIN INITIAL GRADING OF PONDS A, B, AND C, WITHIN THE LIMITS OF PONDS A, B, AND C EMBANKMENT.
6. CONSTRUCT E&S CONTROLS AROUND PONDS A, B, AND C.
6. CONSTRUCT THE SANITARY SEWER FORCEMAIN RELOCATION.
7. EXCAVATE ANY REMAINING CCR FROM AREA WEST OF PONDS A, B, AND C AND HAUL CCR TO AN APPROVED OFFSITE DISPOSAL FACILITY, IF REQUIRED.
8. CONSTRUCT TEMPORARY SEDIMENT BASINS (BASIN B-1 AND BASIN C-1).
9. INSTALL DRAINAGE CHANNELS WITHIN PONDS A, B, AND C, INCLUDING CHANNEL LININGS AND CHECK DAMS.
10. IMPORT AND PLACE FILL, AND COMPLETE FINAL GRADING OF PONDS A, B, AND C SURFACES, UPGRADIENT OF BASIN B-1 AND BASIN C-1.
11. ADD SOIL AMENDMENTS, SEED AND STABILZE PONDS A, B, AND C SURFACE CONCURRENT WITH FINAL GRADING ACTIVITIES.
12. REMOVE TEMPORARY SEDIMENT BASINS (BASIN B-1 AND BASIN C-1).
14. REMOVE A PORTION OF THE EMBANKMETNS FROM PONDS B AND C, AND EXTEND DRAINAGE CHANNELS TO DISCHARGE OFFSITE.
15. ADD SOIL AMENDMENTS, SEED AND STABILZE THE REGRADED BASIN B-1 AND BASIN C-1 SURFACES.
16. REMOVE PERIMETER CONTROLS FROM AROUND PONDS A, B, AND C UPON RECEIVING PERMISSION FROM THE PLAN APPROVING AUTHORITY.

POND D SOC:

ITEMS 1 THROUGH 6 ARE OPERATIONAL ACTIVITES REGULATED UNDER VPDES INDUSTRIAL DISCHARGE PERMIT AND ARE NOT SUBJECT TO PWC SITE PLAN APPROVAL.

1. CONSTRUCT PIPE/HOSE TO POND E TEMPORARY TREATMENT SYSTEM.
2. INSTALL WATER TREATMENT SYSTEM.
3. DRAIN SURFACE WATER TO POND E THROUGH TREATMENT SYSTEM.
4. CONSTRUCT E&S CONTROLS AROUND POND D EMBANKMENT.
5. DEWATER POND D - ACTIVE (WELL POINTS AND RIM DITCH AND UNDERDRAINS).
6. CUT LOW POINT OF POND D STORMWATER RUNOFF CHANNEL ALONG DAM EMBANKMENT.
7. INSTALL UNDERDRAIN TO PHASE 1 CONFIGURATION.
8. BORROW AREA NO. 1 DEVELOPMENT FOR POND D.
9. INSTALL GEOSYNTHETIC CLAY LINER ON SIDE SLOPES AS PHASE 1 FILL PROGRESSES.
10. GRADE AND FILL POND D SUBGRADE (PHASE 1) - WITH ASH FROM STOCKPILE (PONDS A, B, C, & E).
11. PARTIALLY REMOVE POND D EMBANKMENT FOR FILL.
12. GRADE AND FILL POND D SUBGRADE (PHASE 1) - WITH SOIL FILL FROM POND D EMBANKMENT AND BORROW 1.
13. INSTALL GEOSYNTHETIC CAP SYSTEM AS PHASE 2 PROGRESSES.
14. CONSTRUCT POND D PHASE 2 GRADING
15. INSTALL SUB-SURFACE DRAIN SYSTEM AS PHASE 2 GRADING PROGRESSES.
16. INSTALL PHASE 2 CHANNEL LININGS.
17. ESTABLISH PHASE 2 VEGETATION.
18. COMPLETE GEOSYNTHETIC CAP SYSTEM DURING PHASE 3.
19. MODIFY POND D STORMWATER CHANNEL TO FINAL DESIGN CONFIGURATION.
20. CONSTRUCT POND D PHASE 3 GRADING.
21. COMPLETE CHANNEL LININGS.
22. ADD SOIL AMENDMENTS, SEED, AND STABILIZE.
23. REMOVE PERIMETER CONTROLS FROM AROUND POND D UPON RECEIVING PERMISSION FROM THE PLAN APPROVING AUTHORITY.

BORROW AREA NO. 1 SOC:

1. INSTALL PERIMETER EROSION CONTROLS (SUPER SILT FENCE AND SILT FENCE, CULVERT INLET PROTECTION, ETC.).
2. INTIATE CONSTRUCTION OF SEDIMENT BASIN PRIOR TO CONDUCTING BORROW OPERATIONS.
3. AFTER SEDIMENT BASIN RISER IS OPERATIONAL EXCAVATE BORROW AREA TO DRAIN TOWARDS SEDIMENT BASIN.
4. COMPLETE EXCAVATION FOR BORROW AREA.
5. STABILIZE DENUDED AREAS.
6. REMOVE PERIMETER CONTROLS UPON RECEIVING PERMISSION FROM THE PLAN APPROVING AUTHORITY.
7. REMOVE SEDIMENT BASIN.

PRINCE WILLIAM COUNTY CHECKLIST NOTE [APM, SECTION 4.05.3(B9L)]:

1. A PHASE 1 ARCHAEOLOGICAL SURVEY WAS COMPLETED FOR THE PROJECT AND SENT TO THE VIRGINIA DEPARTMENT OF HISTORIC RESOURCES. THE PHASE 1 ARCHAEOLOGICAL SURVEY DEMONSTRATES THERE ARE NO KNOWN CEMETERIES OR HISTORICAL SITES IN THE PROJECT AREA.

TEMPORARY SEEDING CHART (TYPICAL FOR ALL SHEETS)

PLANTING DATES	SPECIES	RATE (lbs/acre)
SEPT. 1 - FEB. 15	50/50 MIX OF ANNUAL RYEGRASS AND WINTER RYE	75
FEB. 16 - APR. 30	ANNUAL RYEGRASS	80
MAY 1 - AUG. 31	GERMAN MILLET	50

PERMANENT SEEDING CHART (3:1 OR LESS) - AREAS OUTSIDE OF THE RPA AND RPA MITIGATION AREA

SPECIES	RATE**(lbs/acre)
KENTUCKY 31 TALL FESCUE	128
RED TOP GRASS	2
SEASONAL NURSE CROP*	20

PERMANENT SEEDING CHART (STEEPER THAN 3:1) - AREAS OUTSIDE OF THE RPA AND RPA MITIGATION AREA

SPECIES	RATE**(lbs/acre)
KENTUCKY 31 TALL FESCUE	101
COMMON BERMUDAGRASS***	7
RED TOP GRASS	2
SEASONAL NURSE CROP*	20
RED CLOVER	20

* USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:

FEBRUARY - APRIL:	ANNUAL RYE
MAY - AUGUST:	FOXTAIL MILLET
SEPTEMEBER - NOVEMBER 15:	ANNUAL RYE
NOVEMBER 16 - JANUARY:	WINTER RYE

** TOTAL RATE IS 150 lbs/acre

*** MAY THROUGH OCTOBER, USE HULLED SEED. ALL OTHER SEEDING PERIODS, USE UNHULLED.

NOTES:
1. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW MAINTENANCE MIX DURING WARMER SEED PERIODS; ADD 10-20 lbs./acre IN MIXES.
2. SUBMIT RECOMMENDATION FROM CERTIFIED AGRICULTURALIST FOR SEEDING AND SOIL AMENDMENTS BASED ON TESTING OF VEGETATIVE SOIL.
3. UNLESS OTHERWISE INDICATED FROM SOIL-SPECIFIC ANALYSIS, SEED MIXTURES AND APPLICATION RATES SHALL BE IN ACCORDANCE WITH THESE PLANS.

PERMANENT SEEDING CHART - AREAS WITHIN THE RPA AND RPA MITIGATION AREA

SPECIES	RATE**(lbs/acre)
INDIAN GRASS	45
VIRGINIA WILD RYE	22.5
BIG BLUESTEM	22.5
REDTOP PANICGRASS	15
SWITCHGRASS	7.5
PARTRIDGE PEA	7.5
AUTUMN BENTGRASS	7.5
BONESET	7.5
MISTFLOWER	3
COMMON SNEEZEWEED	3
MARYLAND SENNA (SENNA MARILANDICA)	3
WILD SENNA	1.5
SWAMP MILKWEED	1.5

** TOTAL RATE IS 150 lbs/acre

NOTES:
1. PERMANENT SEEDING WILL CONSIST OF A NATIVE MIXTURE SUCH AS LISTED ABOVE AND WILL BE APPLIED TO IMPACTED RPA AREAS AND RPA MITIGATION AREAS.
2. THE SEED APPLICATION RATES ARE SUBJECT TO CHANGE BASED ON TESTING OF VEGETATIVE SOIL.
3. SUBMIT RECOMMENDATION FROM CERTIFIED AGRICULTURALIST FOR SEEDING AND SOIL AMENDMENTS BASED ON TESTING OF VEGETATIVE SOIL.
4. SERICEA LESPEDEZA WILL NOT BE APPLIED AT THE SITE DURING ANY SEEDING APPLICATION.

MULCHES	RATES: PER ACRE	RATES: PER 1000 SQ. FT.	NOTES:
STRAW AND HAY	1 1/2 - 2 TONS (MINIMUM 2 TONS FOR WINTER COVER)	70 - 90 lbs.	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH BLOWER OR BY HAND.
FIBER MULCH	MINIMUM 1500 lbs.	35 lbs.	DO NOT USE AS MULCH FOR WINTER COVER OR DURING HOT, DRY PERIODS.* APPLY AS SLURRY.

* WHEN FIBER MULCH IS THE ONLY AVAILABLE MULCH DURING PERIODS WHEN STRAW SHOULD BE USED, APPLY AT A MINIMUM RATE OF 2000 lbs./ac. OR 45 lbs./1000 SQ.FT.

LIME AND FERTILIZER	RATES: PER ACRE	RATES: PER 1,000 SQ. FT.	NOTES:
LIME	2 TONS	90 LBS.	AGRICULTURAL GRADE LIMESTONE
FERTILIZER	1,000 LBS.	23 LBS.	10-20-10

LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL BY DISCING.

SUBMIT RECOMMENDATION FROM CERTIFIED AGRICULTURALIST FOR SEEDING AND SOIL AMENDMENTS BASED ON TESTING OF VEGETATIVE SOIL.

REVISION RECORD

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

PLOTTED ON: 11/17/2015 10:56:44 AM PLOTTED BY: Michael Doyle PLOT FILE: GAI.stb

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

DRAWING TITLE

GENERAL NOTES

gai consultants

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

GAI CAD FILE PATH: Z:\Energy\2015\C150132.00 - DOM - Possum Point PS CCB\CAD\Production Drawings\C150132-00-000-C-D1-002.dwg

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	N/A	12/7/2015

SHEET NO.: 2 OF 65

REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-002

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 002

PERMIT

1992

CHECKLIST

FOR EROSION AND SEDIMENT CONTROL PLANS

X — Minimum Standards - All applicable Minimum Standards must be addressed.

NARRATIVE

X — Project description - Briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.
SEE SHEET 002; IN E&SC NARRATIVE SECTION PROJECT DESCRIPTION

X — Existing site conditions - A description of the existing topography, vegetation and drainage. SEE SHEET 002; IN E&SC NARRATIVE SECTION EXISTING CONDITIONS

X — Adjacent areas - A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.
SEE SHEET 002; IN E&SC NARRATIVE SECTION ADJACENT AREAS

N/A — Off-site areas - Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed? OFF-SITE AREAS ARE NOT ANTICIPATED TO BE DISTURBED

X — Soils - A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure. SEE SHEET 002; IN E&SC NARRATIVE SECTION SOILS

X — Critical areas - A description of areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet weather/ underground springs, etc.). SEE SHEET 002; IN E&SC NARRATIVE SECTION CRITICAL AREAS

X — Erosion and sediment control measures - A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)
SEE SHEET 002; IN E&SC NARRATIVE SECTION E&SC MEASURES.
SEE SHEET 002; IN E&SC NARRATIVE SECTION STRUCTURAL PRACTICES, SEE SHEET 11 THROUGH SHEET 45.
SEE SHEET 002; IN E&SC NARRATIVE SECTION VEGETATIVE PRACTICES, SEE SHEET 11 THROUGH SHEET 45.

X — Permanent stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.
SEE SHEET 002; IN E&SC NARRATIVE SECTION PERMANENT AND TEMPORARY STABILIZATION.

X — Stormwater runoff considerations - Will the development site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff. SEE SHEET 002; IN E&SC NARRATIVE SECTION STORMWATER MANAGEMENT
SEE SHEET 002; IN GENERAL E&SC NOTES, NOTE 30.

X — Calculations - Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.

1992

Checklist (continued)

SITE PLAN

X — Vicinity map - A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.
SEE SHEET 001

X — Indicate north - The direction of north in relation to the site.
INCLUDED ON PLAN SHEETS

X — Limits of clearing and grading - Areas which are to be cleared and graded.
THE PLANNED LIMITS OF DISTURBANCE ARE SHOWN ON THE PLAN SHEETS.

X — Existing contours - The existing contours of the site.
TYPICAL OF PLAN SHEETS

X — Final contours - Changes to the existing contours, including final drainage patterns.
TYPICAL OF PLAN SHEETS

X — Existing vegetation - The existing tree lines, grassed areas, or unique vegetation.
TYPICAL OF PLAN SHEETS

X — Soils - The boundaries of different soil types.
SEE SHEETS 056 THROUGH 059

X — Existing drainage patterns - The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.
SEE SHEET 056 THROUGH SHEET 059

X — Critical erosion areas - Areas with potentially serious erosion problems. (See Chapter 6 for criteria.) AREAS LISTED UNDER CRITICAL AREAS IN E&SC NARRATIVE
TYPICAL AMONG SHEET 11 THROUGH SHEET 45

X — Site Development - Show all improvements such as buildings, parking lots, access roads, utility construction, etc.
TYPICAL OF PLAN DRAWINGS; SEE SHEET 004 THROUGH SHEET 045

X — Location of practices - The locations of erosion and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of this handbook.
SEE SHEET 011 THROUGH SHEET 045

N/A — Off-site areas - Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)
OFF-SITE AREAS ARE NOT ANTICIPATED

X — Detail drawings - Any structural practices used that are not referenced to the E&S handbook or local handbooks should be explained and illustrated with detail drawings.
SEE SHEET 050 THROUGH SHEET 055

X — Maintenance - A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.
SEE SHEET 002; IN E&SC NARRATIVE SECTION MAINTENAMCE SCHEDULE
SEE SHEET 002; GENERAL NOTES, NOTES 10, 11, &15

NOTES REGARDING BALD EAGLE BUFFERS:

1. ACCESS TO POND E IS RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROTECTIVE 660' BALD EAGLE BUFFER. THIS WOULD INCLUDE EQUIPMENT ENTRY TO AND EXIT FROM THE POND, EQUIPMENT REFUELING AND ASSOCIATED MAINTENANCE/REPAIR IF NECESSARY.
2. EQUIPMENT MOVEMENT WITHIN POND E IS RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROTECTIVE 660' BALD EAGLE BUFFER. THE ONLY EXCEPTION TO THIS REQUIREMENT WILL ALLOW FOR A LIMITED PRESENCE INSIDE THE 660' BUFFER, ESTIMATED TO OCCUR NO CLOSER THAN 420' TO THE NEST, NECESSARY TO REACH THIS AREA OF THE POND. THIS WORK INSIDE THE BUFFER MUST BE SEQUENCED TO BEGIN AFTER TREE LEAF OUT TO PROVIDE AN ENHANCED NOISE AND VISUAL BUFFER.
3. ACCESS TO POND D IS RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROTECTIVE 660' BALD EAGLE BUFFER. THIS WOULD INCLUDE EQUIPMENT ENTRY TO AND EXIT FROM THE POND, EQUIPMENT REFUELING AND ASSOCIATED MAINTENANCE/REPAIR IF NECESSARY.
4. EQUIPMENT MOVEMENT WITHIN POND D IS LARGELY RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROTECTIVE 660' BALD EAGLE BUFFER. NOTIFICATION SHALL BE PROVIDED TO ENVIRONMENTAL BIOLOGY PRIOR TO INITIATING WORK ACTIVITIES WITHIN THE 330' AND 660' BUFFER ZONE OF POND D. WORK WITHIN THE 660' ZONE SHOULD ALSO, AS MUCH AS REASONABLY POSSIBLE, BE SCHEDULED TO OCCUR DURING THE NON-BREEDING SEASON FROM JULY 16 – DECEMBER 14. WORK IS NOT PERMITTED WITHIN THE 330' BUFFER ZONE DURING THE BREEDING SEASON.
5. ANY STAGING OF EQUIPMENT, FACILITIES OR MATERIALS ON THE SITE IS RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROTECTIVE 660' BALD EAGLE BUFFERS ASSOCIATED WITH PONDS E AND D.

GEOTECHNICAL NOTE:

1. A GEOTECHNICAL REPORT IS NOT REQUIRED FOR THE PRINCE WILLIAM COUNTY SITE PLAN SUBMITTAL.. A GEOTECHNICAL EXPLORATION AND TESTING PROGRAM HAS BEEN COMPLETED AND A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR SUBMISSION TO OTHER AGENCIES, AS REQUIRED.

PROPOSED EROSION AND SEDIMENT CONTROL LEGEND

SF	SILT FENCE	SF
SSF	SUPER SILT FENCE	SSF SSF
IP	STORM DRAIN INLET PROTECTION	
CIP	CULVERT INLET PROTECTION	
ST	TEMPORARY SEDIMENT TRAP	
SB	TEMPORARY SEDIMENT BASIN	
SCC	STORMWATER CONVEYANCE CHANNEL	
OP	OUTLET PROTECTION	
B/M	SOIL STABILIZATION BLANKETS AND MATTING	
TO	TOPSOILING	
TS	TEMPORARY SEEDING	
PS	PERMANENT SEEDING	
MU	MULCHING	
CD	ROCK CHECK DAM	
DD	TEMPORARY DIVERSION DIKE	
RR	RIPRAP	
SAF	SAFETY FENCE	CF CF
CE	CONSTRUCTION ENTRANCE	
	LIMITS OF DISTURBANCE	LOD LOD

LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
CCR	COAL COMBUSTION RESIDUALS
V.P.D.E.S.	VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
BMP	BEST MANAGEMENT PRACTICE
V.E.S.C.H.	VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK
SSD	SUBSURFACE DRAIN
QC	QUALITY CONTROL
UD	UNDERDRAIN
AR	ACCESS ROAD
VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
CQC	CONSTRUCTION QUALITY CONTROL
ADS	ADVANCED DRAINAGE SYSTEMS
SDR	STANDARD DIMENSION RATIO
HDPE	HIGH-DENSITY POLYETHYLENE
LLDPE	LOW LINEAR-DENSITY POLYETHYLENE
GCL	GEOSYNTHETIC CLAY LINER
GDN	GEOSYNTHETIC DRAINAGE NET
CCM	CELLULAR CONCRETE MAT

PLAN REVIEW MINIMUM STANDARD CHECKLIST

YES	NO	NA		
X	[]	[]	MS-1	Have temporary and permanent stabilization been addressed in narrative?
X	[]	[]		Are practices shown on the plan? SEE SHEET 11 THROUGH SHEET45
X	[]	[]		Seed specifications? SEE SHEET 002 IN E&SC NARRATIVE SECTION VEGETATIVE PRACTICE
X	[]	[]		Mulching? SEE SHEET 002 IN E&SC NARRATIVE SECTION VEGETATIVE PRACTICE
X	[]	[]		Gravel? SEE SHEET 11 THROUGH 45 ROADS, INLET PROTECTION, OUTLET PROTECTION, AND RIPRAP
X	[]	[]	MS-2	Has stabilization of soil stockpiles been addressed in narrative?
X	[]	[]		Are sediment trapping measures provided? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 17 SEE SHEET 002 IN GENERAL E&SC NOTES, NOTES 10.d, 12, AND 13
X	[]	[]	MS-3	Has maintenance of permanent stabilization been addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE10.g
X	[]	[]	MS-4	Are sediment trapping facilities to be constructed as a first step in LDA?
X	[]	[]		Has maintenance of practices been addressed? (i.e. repair of structures and removal accumulated sediment) SEE SHEET 002 IN GENERAL E&SC NOTES, NOTES 10 AND 12
X	[]	[]	MS-5	Has stabilization of earthen structures been addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 19
X	[]	[]	MS-6	Are sediment basins required where needed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 12
X	[]	[]	MS-7	Has stabilization of cut and fill slopes been adequately addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 20
X	[]	[]	MS-8	Are paved flumes, channels, or slope drains required where necessary? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 21
X	[]	[]	MS-9	Have water seeps from slope face, adequate drainage or other protection addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 22
X	[]	[]	MS-10	Is adequate inlet protection required on all operational storm sewer inlets? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 23
X	[]	[]	MS-11	Are channel lining and/or outlet protection required on stormwater conveyance channels? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 24
X	[]	[]	MS-12	Are in-stream construction measures required so that channel damage is minimized? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 25
X	[]	[]	MS-13	Are temporary stream crossings of non-erodible material required where necessary? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 25
X	[]	[]	MS-14	Are all applicable federal, state and local regulations pertaining to working in or crossing live watercourses being met? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 27
X	[]	[]	MS-15	Has re-stabilization of areas subject to in-stream construction been adequately addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 28
X	[]	[]	MS-16	Has stabilization of utility trenches been addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 29
X	[]	[]	MS-17	Has the prevention of transporting of soil and mud onto public roadways been adequately addressed? (i.e. Construction Entrances, Wash Racks, daily cleaning of roadways, transport of sediment to a trapping facility) SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 33
X	[]	[]	MS-18	Has the removal of temporary practices been addressed? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 16
X	[]	[]	MS-19	Are properties and waterways downstream from the development adequately protected from erosion and sediment deposition due to increases in peak stormwater runoff? SEE SHEET 002 IN GENERAL E&SC NOTES, NOTE 30

EXISTING (EX.) LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- SPOT ELEVATION
- SURVEY BENCHMARK
- TREE
- TREE/VEGETATION LINE
- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- RIGHT-OF-WAY
- EDGE OF WATER/POND
- FENCE
- APPROX. MONITORING WELL
- APPROX. PIEZOMETER
- TEST PIT LOCATION
- ELECTRIC TOWER
- POLE NUMBER
- ELECTRIC POLE
- GUY WIRES
- OVERHEAD ELECTRIC/TELEPHONE/CABLE
- OVERHEAD ELECTRIC
- UNDERGROUND TELEPHONE
- GAS
- WATERLINE
- FORCEMAIN SEWERLINE
- AIR RELEASE VALVE
- CCR SLUICE LINES
- FEMA 100 YEAR FLOODPLAIN
- PRINCE WILLIAM CO. RESOURCE PROTECTION AREA
- GAI DELINEATED RESOURCE PROTECTION AREA
- WETLAND
- APPROX. CCR LIMITS
- GUARDRAIL
- EAGLE NEST LOCATION & BUFFER ZONES

PROPOSED (PROP.) LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- FENCE
- PIPE (AS SPECIFIED ON PLANS)
- SPILLWAY OUTLET PIPE/CULVERT
- SUBSURFACE DRAIN
- UNDERDRAIN
- FORCEMAIN SEWERLINE
- CHANNEL (SEE SHEET 38)
- LIMITS OF PROPOSED (PROP.) GEOSYNTHETIC CAP SYSTEM
- GUARDRAIL
- CLEANOUT
- OUTLET PROTECTION
- RIPRAP SLOPE PROTECTION
- TEMPORARY BASIN AREA
- SECTION INDICATORS
- COMMON FILL
- GRAVEL ACCESS ROAD
- PROP. SPOT ELEVATION
- PROP. SETTLING MONUMENT

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing as manual drafting methods.

DRAWING TITLE: PROJECT CHECKLISTS AND LEGENDS

CLIENT: VIRGINIA ELECTRIC AND POWER COMPANY, GLEN ALLEN, VA

PROJECT: POSSUM POINT POWER STATION, COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES, DUMFRIES, VA

gai consultants

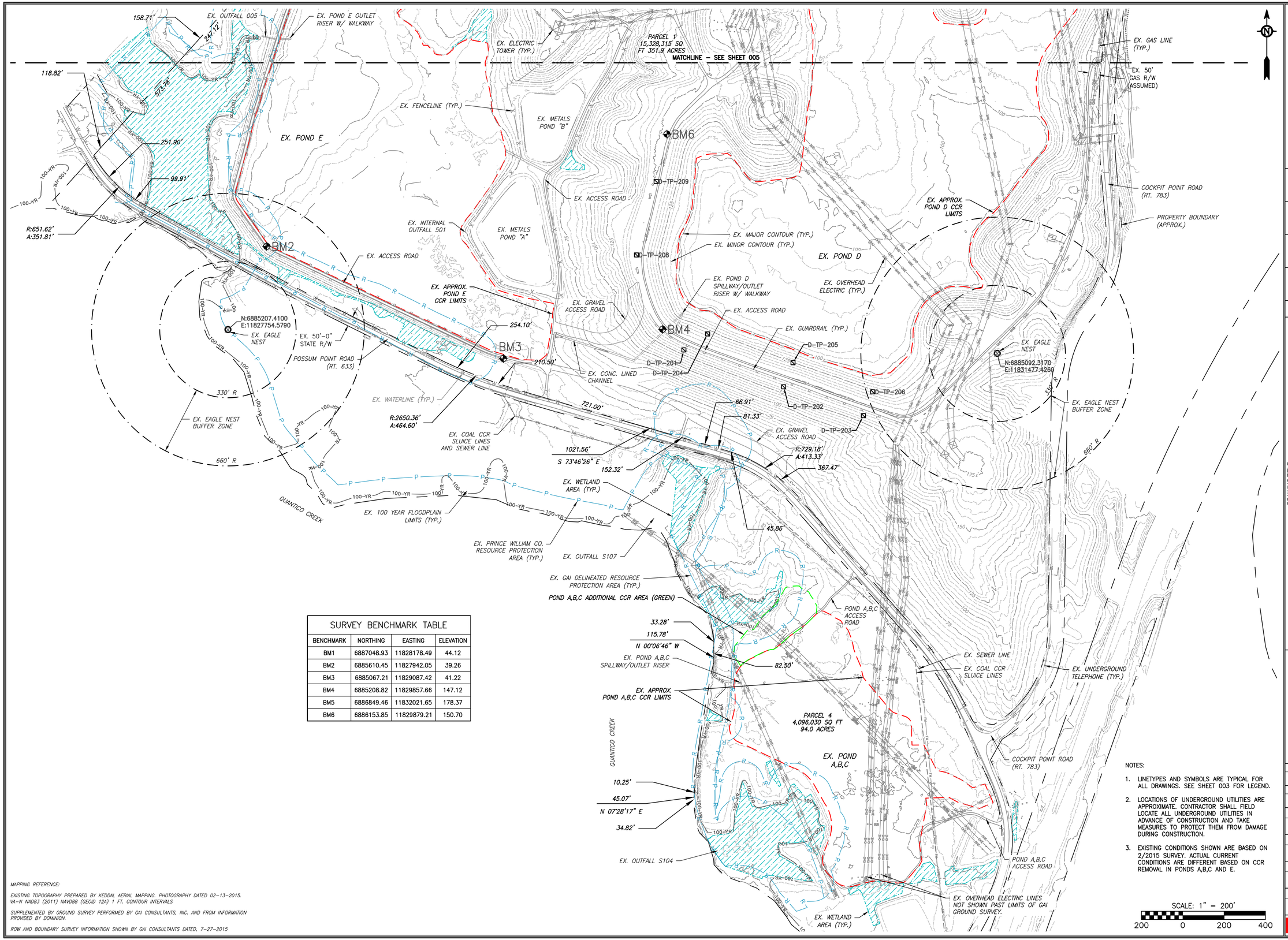
ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

GAI CAD FILE PATH: J:\Energy\2013\c150132.00 – DOM – Possum Point PS_CCR\CAD\Production Drawings\C150132-00-000-C-D1-002.dwg – PLOTTED ON: 11/17/2015, 10:58:12 AM – PLOTTED BY: Michael Doyle – PLOT FILE: GAI.stb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	N/A	12/7/2015
SHEET NO.: 3 OF 65		REVISION
GAI FILE NUMBER: C150132-00-000-C-D1-002		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER: 003		

PERMIT



SURVEY BENCHMARK TABLE			
BENCHMARK	NORTHING	EASTING	ELEVATION
BM1	6887048.93	11828178.49	44.12
BM2	6885610.45	11827942.05	39.26
BM3	6885067.21	11829087.42	41.22
BM4	6885208.82	11829857.66	147.12
BM5	6886849.46	11832021.65	178.37
BM6	6886153.85	11829879.21	150.70

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02–13–2015. VA–N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE
EXISTING CONDITIONS PLAN (1 OF 2)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

GAI CAD FILE PATH: Z:\Energy\2015\C150132.00 – DOM – Possum Point PS_CCR\CAD\Production Drawings\c150132–00–000–C–D1–004.dwg – PLOTTED: ON: 11/17/2015 1:45:05 PM – PLOTTED BY: Michael Doyle – PLOT FILE: GAI.stb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 4 OF 65		REVISION

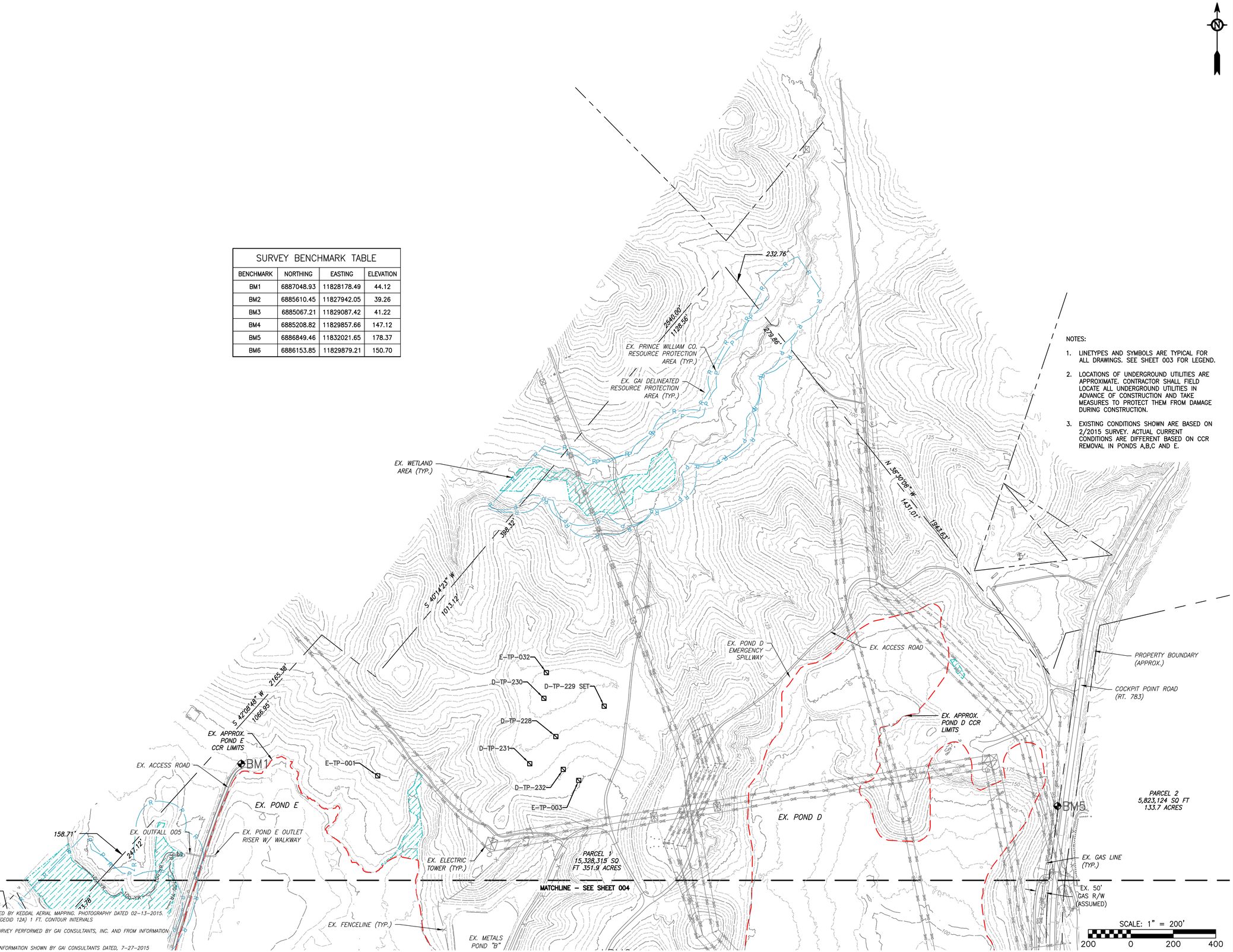
GAI FILE NUMBER:
C150132-00-000-C-D1-004

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:
004

PERMIT

SURVEY BENCHMARK TABLE			
BENCHMARK	NORTHING	EASTING	ELEVATION
BM1	6887048.93	11828178.49	44.12
BM2	6885610.45	11827942.05	39.26
BM3	6885067.21	11829087.42	41.22
BM4	6885208.82	11829857.66	147.12
BM5	6886849.46	11832021.65	178.37
BM6	6886153.85	11829879.21	150.70



NOTES:

1. LINETYPES AND SYMBOLS ARE TYPICAL FOR ALL DRAWINGS. SEE SHEET 003 FOR LEGEND.
2. LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD LOCATE ALL UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION AND TAKE MEASURES TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION.
3. EXISTING CONDITIONS SHOWN ARE BASED ON 2/2015 SURVEY. ACTUAL CURRENT CONDITIONS ARE DIFFERENT BASED ON CCR REMOVAL IN PONDS A,B,C AND E.

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

GAI CAD FILE PATH: Z:\Energy\Jobs\C150132.00 — DOM — Possum Point PS CCR\CAD\Production Drawings\c150132-00-000-C-D1-004.dwg — PLOTTED: ON: 11/17/2015 1:40:36 PM — PLOTTED BY: Michael Doyle — PLOT FILE: GAI.stb

DRAWING TITLE
EXISTING CONDITIONS PLAN (2 OF 2)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY GLEN ALLEN, VA

gai consultants

PROJECT
POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

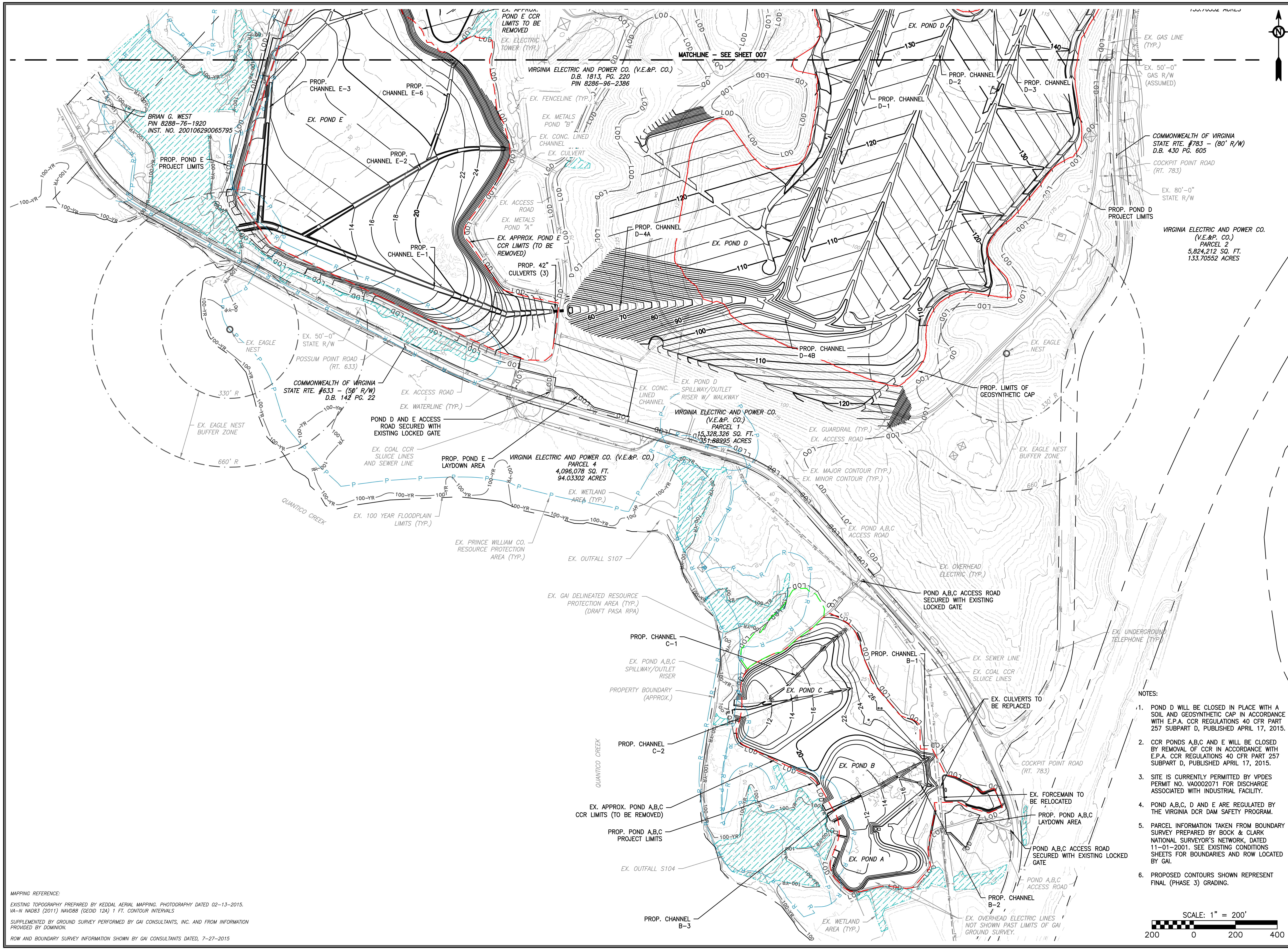
DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
5 OF 65		△

GAI FILE NUMBER:
C150132-00-000-C-D1-004

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:
005

PERMIT



NOTES:

1. POND D WILL BE CLOSED IN PLACE WITH A SOIL AND GEOSYNTHETIC CAP IN ACCORDANCE WITH E.P.A. CCR REGULATIONS 40 CFR PART 257 SUBPART D, PUBLISHED APRIL 17, 2015.
2. CCR PONDS A,B,C AND E WILL BE CLOSED BY REMOVAL OF CCR IN ACCORDANCE WITH E.P.A. CCR REGULATIONS 40 CFR PART 257 SUBPART D, PUBLISHED APRIL 17, 2015.
3. SITE IS CURRENTLY PERMITTED BY VPDES PERMIT NO. VA0002071 FOR DISCHARGE ASSOCIATED WITH INDUSTRIAL FACILITY.
4. POND A,B,C, D AND E ARE REGULATED BY THE VIRGINIA DCR DAM SAFETY PROGRAM.
5. PARCEL INFORMATION TAKEN FROM BOUNDARY SURVEY PREPARED BY BOCK & CLARK NATIONAL SURVEYOR'S NETWORK, DATED 11-01-2001. SEE EXISTING CONDITIONS SHEETS FOR BOUNDARIES AND ROW LOCATED BY GAI.
6. PROPOSED CONTOURS SHOWN REPRESENT FINAL (PHASE 3) GRADING.

SCALE: 1" = 200'

200 0 200 400

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE: SITE MASTER/ACCESS PLAN (1 OF 2)

CLIENT: VIRGINIA ELECTRIC AND POWER COMPANY, GLEN ALLEN, VA

PROJECT: POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES, DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA — JOHN R. KLAMUT, Lic. No. 048859 — 12/7/2015 — PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 6 OF 65

REVISION: △

GAI FILE NUMBER: C150132-00-000-C-D1-006

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 006

PERMIT

NOTES:

1. POND D WILL BE CLOSED IN PLACE WITH A SOIL AND GEOSYNTHETIC CAP IN ACCORDANCE WITH E.P.A. CCR REGULATIONS 40 CFR PART 257 SUBPART D, PUBLISHED APRIL 17, 2015.
2. CCR PONDS A,B,C AND E WILL BE CLOSED BY REMOVAL OF CCR IN ACCORDANCE WITH E.P.A. CCR REGULATIONS 40 CFR PART 257 SUBPART D, PUBLISHED APRIL 17, 2015.
3. SITE IS CURRENTLY PERMITTED BY V.P.D.E.S. PERMIT NO. VA0002071 FOR DISCHARGE ASSOCIATED WITH INDUSTRIAL FACILITY.
4. POND A,B,C, D AND E ARE REGULATED BY THE VIRGINIA DCR DAM SAFETY PROGRAM.
5. PARCEL INFORMATION TAKEN FROM BOUNDARY SURVEY PREPARED BY BOCK & CLARK NATIONAL SURVEYOR'S NETWORK, DATED 11-01-2001. SEE EXISTING CONDITIONS SHEETS FOR BOUNDARIES AND ROW LOCATED BY GAI.
6. PROPOSED CONTOURS SHOWN REPRESENT FINAL GRADING.

VMS/ANDEN SOUTHBRIDGE VENTURE PIN 8289-90-8649 D.B. 1615, PG. 1074

225' V.E.&P. CO. R/W D.B. 135, PG. 1

EX. PRINCE WILLIAM CO. RESOURCE PROTECTION AREA (TYP.)

EX. GAI DELINEATED RESOURCE PROTECTION AREA (TYP.) (DRAFT PASA RPA)

EX. WETLAND AREA (TYP.)

VMS/ANDEN SOUTHBRIDGE VENTURE PIN 8388-18-4994 D.B.1603, PG. 1990

VMS/ANDEN SOUTHBRIDGE VENTURE PIN 8389-41-3404 D.B.1622, PG. 842

CSX TRANSPORTATION, INC. PIN 8388-18-8706 D.B. 2305, PG. 1320

RF & P RR TOWER SITE PIN 8388-28-1204 D.B. 1833, PG. 1307

VIRGINIA ELECTRIC AND POWER CO. (V.E.&P. CO.) D.B. 1813, PG. 220 PIN 8286-96-2386

VMS/ANDEN SOUTHBRIDGE VENTURE (SOUTH AREA) PIN 8389-41-3404 D.B. 1622, PG. 842

APPROXIMATE PROPOSED BORROW AREA 1 LIMITS

225' V.E.&P. CO. R/W D.B. 135, PG. 1

EX. ACCESS ROAD

EX. APPROX. POND D CCR LIMTS

OWNERSHIP UNKNOWN

PROPERTY BOUNDARY (APPROX.)

APPROXIMATE PROPOSED BORROW AREA 2 LIMITS

PROP. POND E PROJECT LIMITS

PROPERTY BOUNDARY (APPROX.)

EX. ACCESS ROAD

EX. POND E OUTLET RISER W/ WALKWAY

EX. OUTFALL 005

EX. POND D EMERGENCY SPILLWAY

PROP. POND D PROJECT LIMITS

POND D AND E ACCESS ROAD SECURED WITH EXISTING LOCKED GATE

COCKPIT POINT ROAD (RT. 783)

PROP. ELECTRICAL SERVICE AND TRAILER LOCATION

PROP. POND D LAYDOWN AREA

COMMONWEALTH OF VIRGINIA STATE RTE. #783 - (80' R/W) D.B. 430 PG. 605

EX. 80'-0" STATE R/W

VMS/ANDEN SOUTHBRIDGE VENTURE PIN 8288-78-8849 D.B. 1619, PG. 747

EX. POND E

EX. APPROX. POND E CCR LIMITS TO BE REMOVED

EX. ELECTRIC TOWER (TYP.)

VIRGINIA ELECTRICAND POWER CO. (V.E.&P. CO.) PARCEL 2 5,824,212 SQ. FT. 133.70552 ACRES

EX. POND D

EX. GAS LINE (TYP.)

VIRGINIA ELECTRIC AND POWER CO. (V.E.&P. CO.) D.B. 1813, PG. 220 PIN 8286-96-2386

MATCHLINE - SEE SHEET 006

PROP. CHANNEL E-3

PROP. CHANNEL E-6

PROP. CHANNEL D-1

PROP. CHANNEL D-2

PROP. CHANNEL D-3

EX. 50'-0" GAS R/W (ASSUMED)

EX. FENCELINE (TYP.)

EX. METALS POND "B"

EX. POND E

SCALE: 1" = 200'

200 0 200 400

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE: SITE MASTER/ACCESS PLAN (2 OF 2)

CLIENT: VIRGINIA ELECTRIC AND POWER COMPANY GLEN ALLEN, VA

PROJECT: POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES DUMFRIES, VA

gai consultants

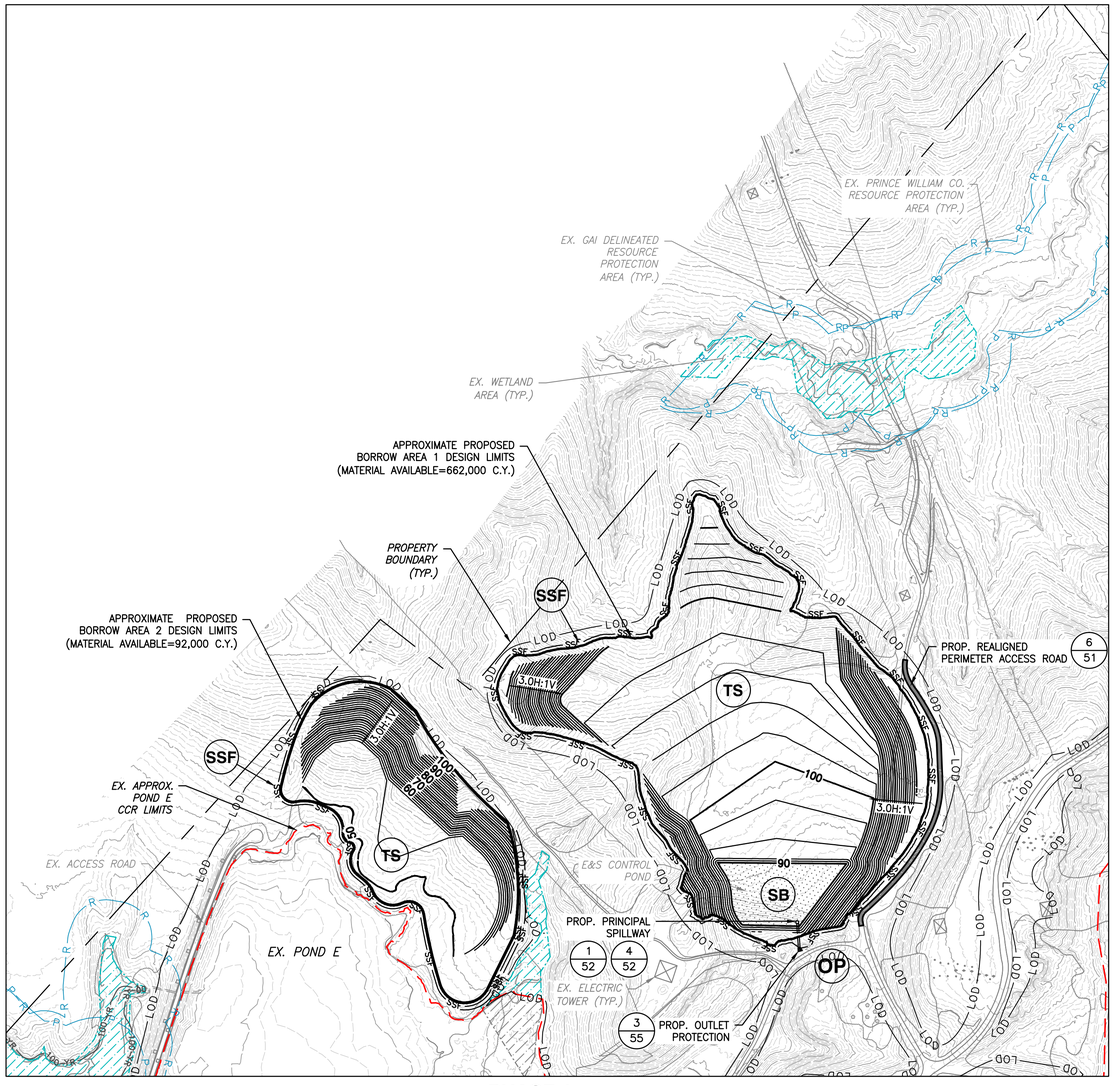
ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

GAI CAD FILE PATH: Z:\Energy\2015\C150132.00_-_PCM_-_Possum_Point_PS_IOR\CAD\Production_Drawings\C150132-00-000-C-D1-006.dwg PLOTTED ON: 11/17/2015, 1:47:23, PM PLOTTED BY: Michael Doyle PLOT FILE: ctb.ctb

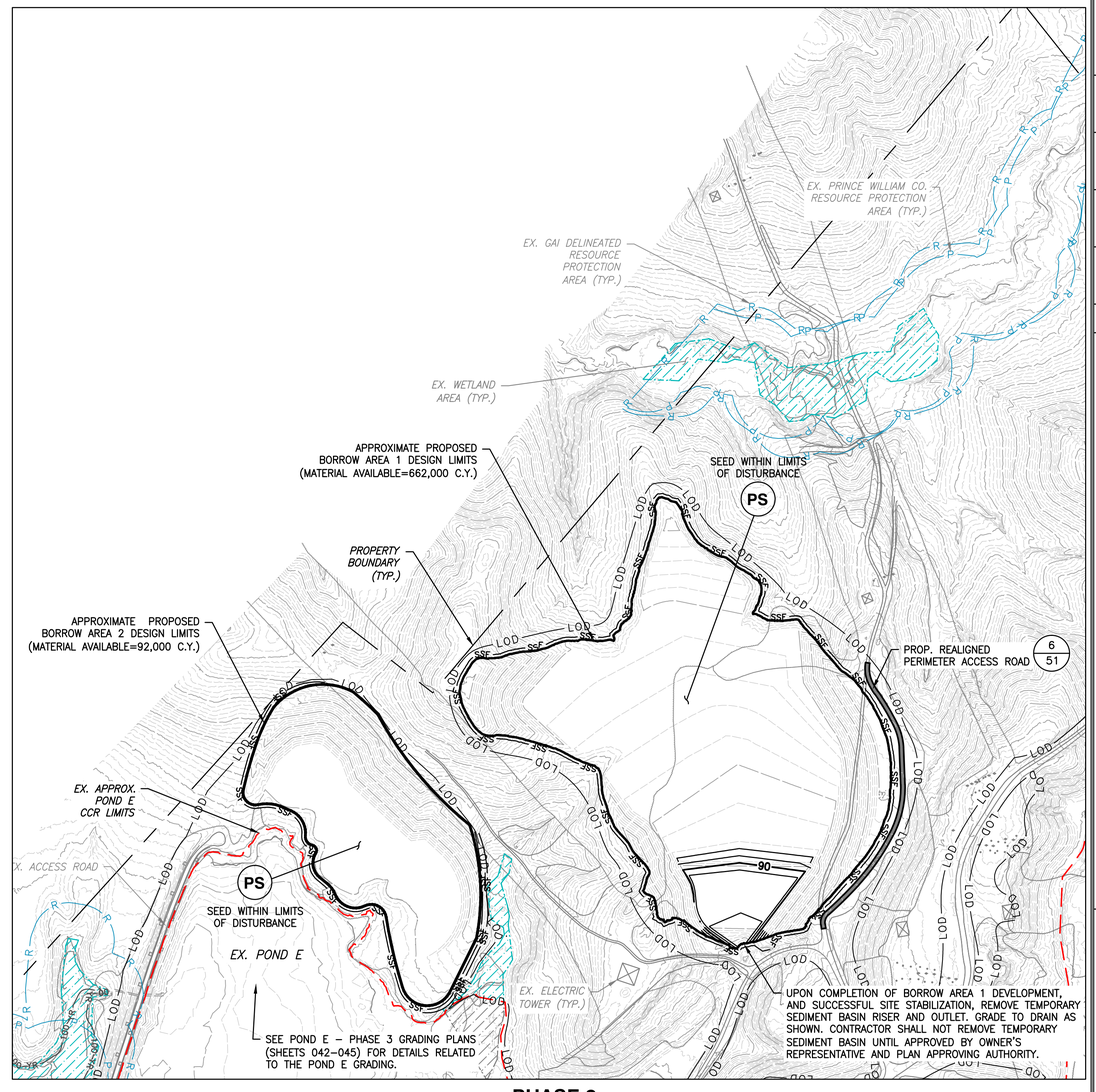
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
7 OF 65		△
GAI FILE NUMBER:		
C150132-00-000-C-D1-006		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER:		
007		

PERMIT



PHASE 1



PHASE 2

BORROW AREA	APPROX. MATERIAL AVAILABLE
1	662,000 C.Y.
2	92,000 C.Y.

PHASE 1 PLAN NOTE:

1. CONTRACTOR SHALL STRIP TOP SOIL (TOP 6" MIN.) AND STOCKPILE FOR USE AS VEGETATIVE SUPPORT LAYER IN POND D FINAL COVER.

GENERAL SOIL BORROW DEVELOPMENT PLAN NOTES:

1. ESTIMATED SOIL VOLUMES ARE APPROXIMATE BASED ON SOILS INFORMATION OBTAINED FROM THE SOIL BORINGS AND EXCAVATED TEST PITS.
2. FINAL GRADING SHOWN FOR BORROW AREA 1 YIELDS 662,000 C.Y. OF SOIL.
3. MAXIMUM SLOPE IS 3H:1V. GRADE TO DRAIN MINIMUM SLOPE IS 1%.

PHASE 2 PLAN NOTE:

1. MAXIMUM LIMITS OF PROPOSED BORROW AREAS SHOWN. CONTRACTOR MAY REDUCE BORROW AREA L.O.D. AND MODIFY GRADING PER NOTE 3, AS APPROVED BY THE OWNER'S ENGINEER.

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

SCALE: 1" = 200'

200 0 200 400

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE
SOIL BORROW AREA DEVELOPMENT PLAN

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

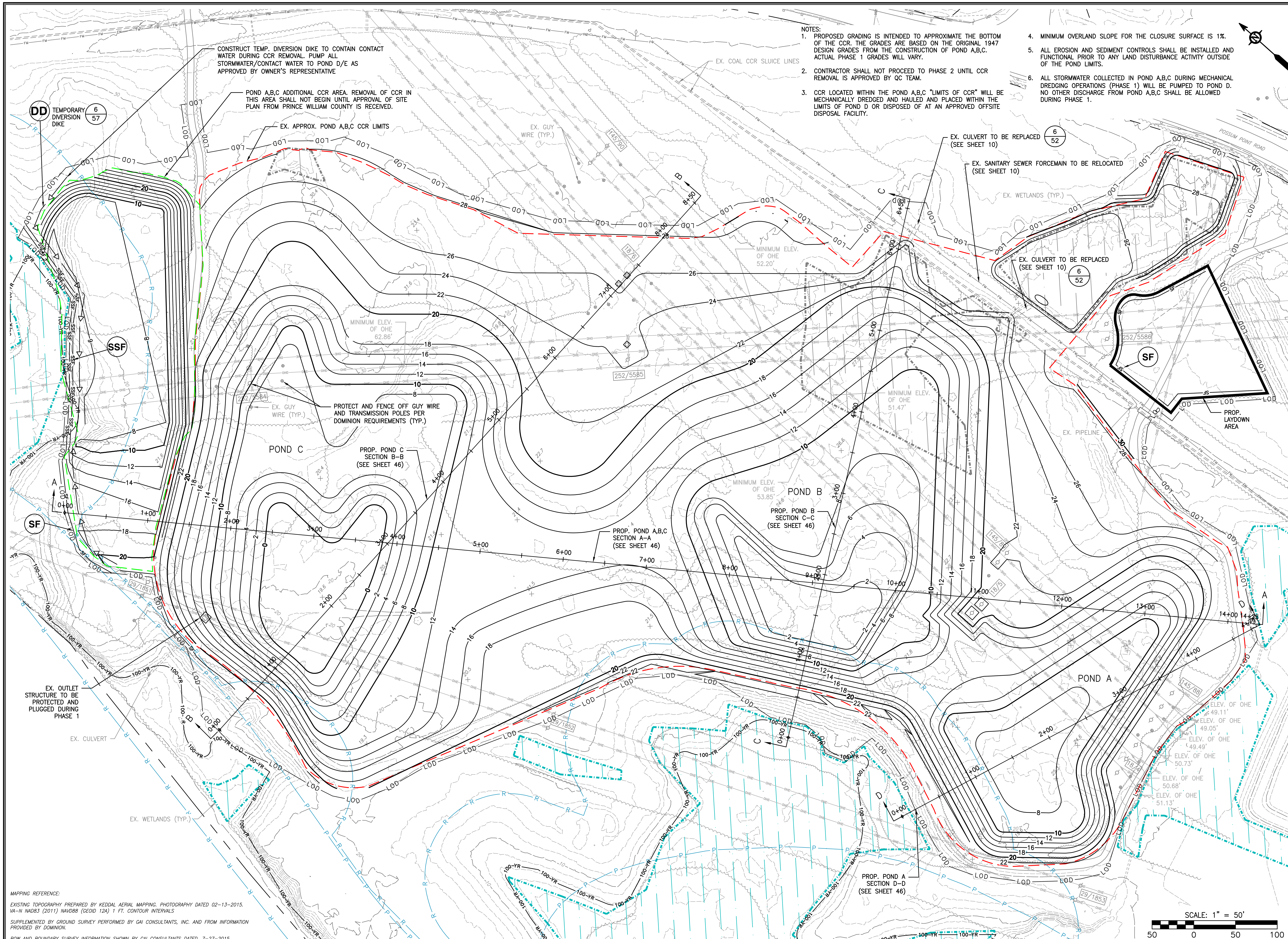
ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

CAI CAD FILE PATH: Z:\Energy\2015\C150132.00 — PDM — Possum Point PS_CCR\CAD\Production Drawings\C150132-00-000-C-D1-008.dwg — PLOTTED: CRK: 11/17/2015, 2:15:17 PM — PLOTTED BY: Michael Doyle — PLOT FILE: GAI.stb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
8 OF 65		
GAI FILE NUMBER:		
C150132-00-000-C-D1-008		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER:		
008		

PERMIT



CONSTRUCT TEMP. DIVERSION DIKE TO CONTAIN CONTACT WATER DURING CCR REMOVAL. PUMP ALL STORMWATER/CONTACT WATER TO POND D/E AS APPROVED BY OWNER'S REPRESENTATIVE
POND A,B,C ADDITIONAL CCR AREA. REMOVAL OF CCR IN THIS AREA SHALL NOT BEGIN UNTIL APPROVAL OF SITE PLAN FROM PRINCE WILLIAM COUNTY IS RECEIVED.
EX. APPROX. POND A,B,C CCR LIMITS
DD TEMPORARY DIVERSION DIKE 6/57
EX. COAL CCR SLUICE LINES
EX. GUY WIRE (TYP.)
MINIMUM ELEV. OF OHE 52.20'
MINIMUM ELEV. OF OHE 62.86'
MINIMUM ELEV. OF OHE 51.47'
MINIMUM ELEV. OF OHE 53.85'
EX. CULVERT TO BE REPLACED (SEE SHEET 10) 6/52
EX. SANITARY SEWER FORCEMAIN TO BE RELOCATED (SEE SHEET 10)
EX. WETLANDS (TYP.)
EX. CULVERT TO BE REPLACED (SEE SHEET 10) 6/52
POSSUM POINT ROAD
SSF
SF
PROP. LAYDOWN AREA
EX. PIPELINE
PROTECT AND FENCE OFF GUY WIRE AND TRANSMISSION POLES PER DOMINION REQUIREMENTS (TYP.)
EX. GUY WIRE (TYP.)
POND C
PROP. POND C SECTION B-B (SEE SHEET 46)
POND B
PROP. POND B SECTION C-C (SEE SHEET 46)
PROP. POND A,B,C SECTION A-A (SEE SHEET 46)
POND A
EX. OUTLET STRUCTURE TO BE PROTECTED AND PLUGGED DURING PHASE 1
EX. CULVERT
EX. WETLANDS (TYP.)
ELEV. OF OHE 49.11'
ELEV. OF OHE 49.05'
ELEV. OF OHE 49.49'
ELEV. OF OHE 50.73'
ELEV. OF OHE 50.68'
ELEV. OF OHE 51.13'
PROP. POND A SECTION D-D (SEE SHEET 46)
252/5585
252/5584
252/5586
29/1852
29/1853

NOTES:

1. PROPOSED GRADING IS INTENDED TO APPROXIMATE THE BOTTOM OF THE CCR. THE GRADES ARE BASED ON THE ORIGINAL 1947 DESIGN GRADES FROM THE CONSTRUCTION OF POND A,B,C. ACTUAL PHASE 1 GRADES WILL VARY.
2. CONTRACTOR SHALL NOT PROCEED TO PHASE 2 UNTIL CCR REMOVAL IS APPROVED BY QC TEAM.
3. CCR LOCATED WITHIN THE POND A,B,C "LIMITS OF CCR" WILL BE MECHANICALLY DREDGED AND HAULED AND PLACED WITHIN THE LIMITS OF POND D OR DISPOSED OF AT AN APPROVED OFFSITE DISPOSAL FACILITY.
4. MINIMUM OVERLAND SLOPE FOR THE CLOSURE SURFACE IS 1%.
5. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY LAND DISTURBANCE ACTIVITY OUTSIDE OF THE POND LIMITS.
6. ALL STORMWATER COLLECTED IN POND A,B,C DURING MECHANICAL DREDGING OPERATIONS (PHASE 1) WILL BE PUMPED TO POND D. NO OTHER DISCHARGE FROM POND A,B,C SHALL BE ALLOWED DURING PHASE 1.

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

SCALE: 1" = 50'

50 0 50 100

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drafting files. Do not revise this drawing via manual drafting methods.

GAI CAD FILE PATH: Z:\Energy\2015\C150132.00 – DOM – Possum Point PS CCB\CAD\Production Drawings\C150132-00-000-C-D1-009.dwg PLOTTED ON: 11/17/2015 2:21:26 PM PLOTTED BY: Michael Doyle PLOT FILE: GAI.ctb

DRAWING TITLE

PHASE 1 GRADING PLAN - POND A,B,C CLOSURE

PROJECT

POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES DUMFRIES, VA

gai consultants

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY GLEN ALLEN, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA JOHN R. KLAMUT Lic. No. 048859 12/7/2015 PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 9 OF 65

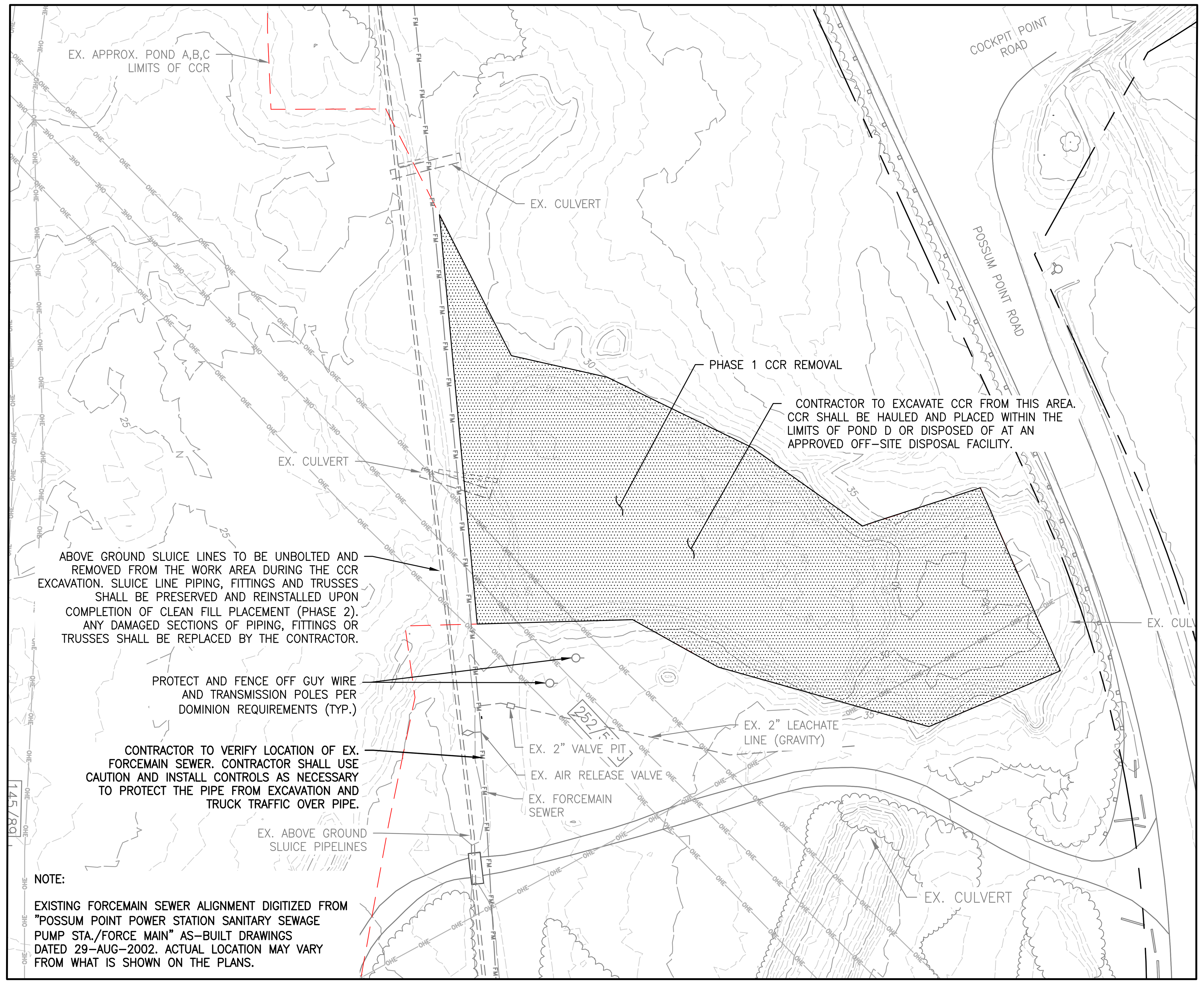
REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-009

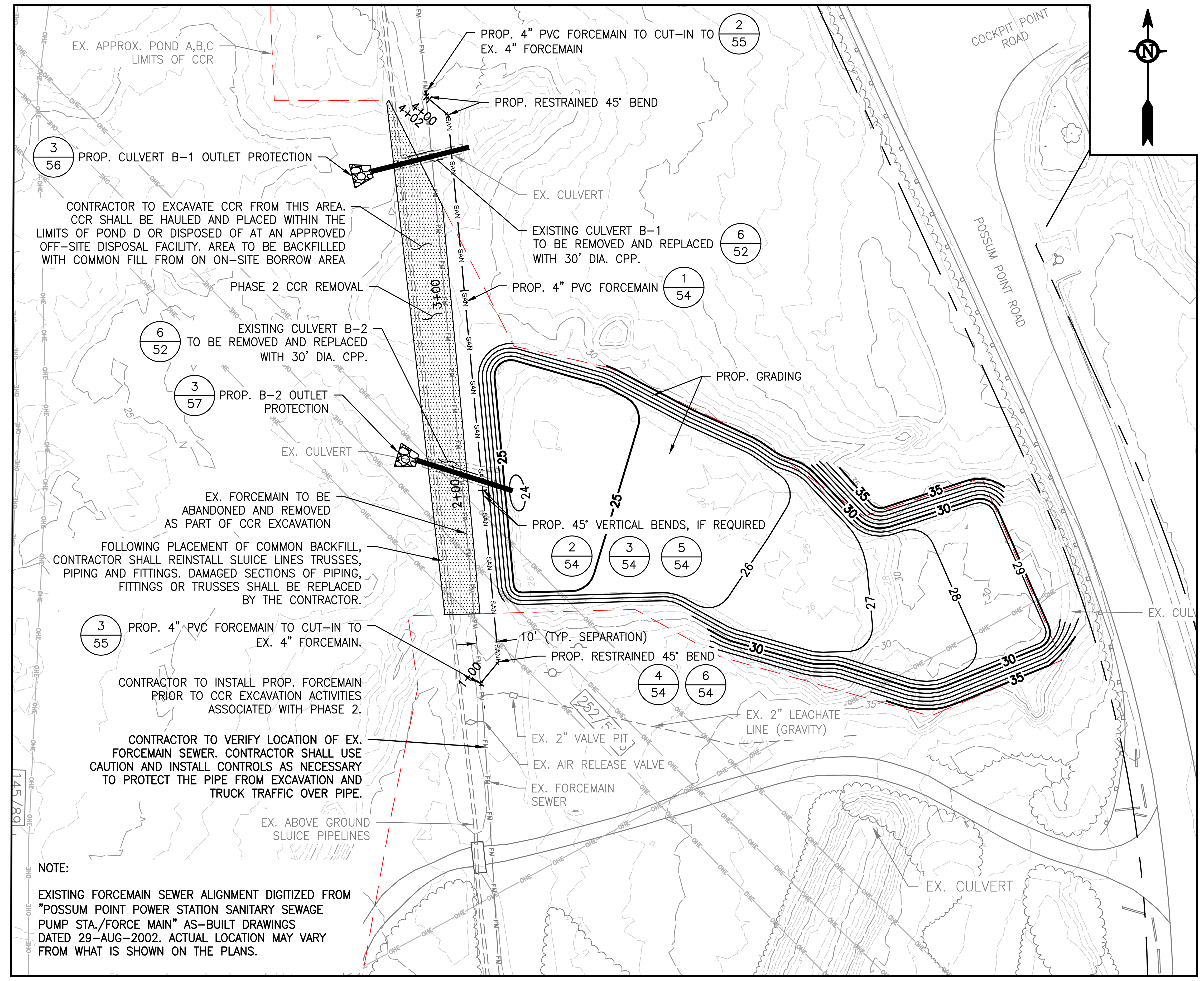
ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 009

PERMIT



PHASE 1



PHASE 2

SANITARY SEWER FORCEMAIN RELOCATION GENERAL NOTES:

A. PRIOR TO COMMENCING WORK ACTIVITIES:

1. APPROVED EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
2. CONTRACTOR SHALL FIELD LOCATE ALL UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION AND TAKE MEASURES TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION.
3. CONTRACTOR SHALL STAKE OUT ALL UTILITIES AND LIMITS OF WORK AREAS.
4. PROVIDE THE OWNER WITH A PLANNED CONSTRUCTION SCHEDULE/SEQUENCE AND TESTING PLAN FOR APPROVAL.
5. CONTRACTOR SHALL FIELD VERIFY THE FORCEMAIN SIZE AND MATERIAL AT THE TIE-IN POINTS PRIOR TO ORDERING PIPING, FITTINGS, COUPLINGS AND JOINT RESTRAINTS. IN THE EVENT AN UNEXPECTED PIPE SIZE OR MATERIAL IS IDENTIFIED, NOTIFY THE OWNER AND ENGINEER IMMEDIATELY.

B. PRIOR TO PERFORMING THE CUT-INS TO THE EXISTING FORCEMAIN:

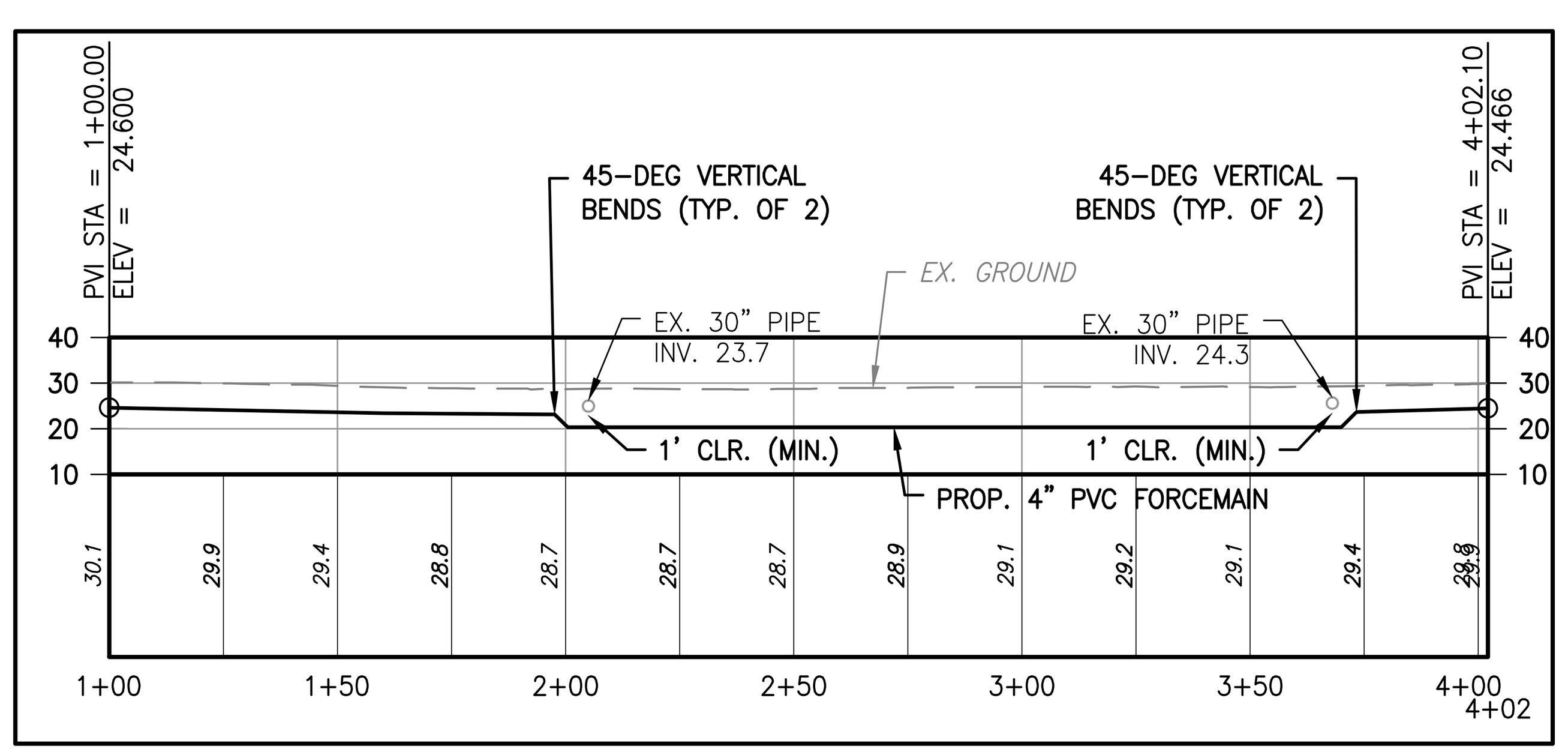
1. NOTIFY THE STATION AT LEAST TWO WEEKS IN ADVANCE OF INTENT TO PERFORM THE CUT-INS AND TO COORDINATE THE TIME OF THE REQUIRED SHUTDOWN.
2. VERIFY THAT THE OWNER'S SANITARY SEWAGE TRANSFER PUMPS HAVE BEEN DE-ENERGIZED AND LOCK-OUT/TAG-OUT ('LOTO') PROCEDURES HAVE BEEN IMPLEMENTED.
3. INSTALL VALVE CUT-IN TO ISOLATE DOWNSTREAM USERS DURING FORCEMAIN RELOCATION WORK. SEE "PROPOSED VALVE CUT-IN LOCATION PLAN", THIS SHEET.
4. THE SECTION OF FORCEMAIN AFFECTED BY THE TIE-INS SHALL BE PUMPED DRY TO A TANKER TRUCK OR OTHER APPROVED LOCATION AND DISPOSED AS ACCEPTABLE TO THE OWNER AND JURISDICTIONAL AGENCY. THIS SHALL BE ACCOMPLISHED USING A WATERTIGHT TAPPING SLEEVE AND VALVE ON A SECTION OF PIPE THAT IS TO BE ABANDONED, AND INSTALLING WATERTIGHT PIPING TO THE PUMP AND TANKER TRUCK OR OTHER APPROVED LOCATION.

C. FORCEMAIN INSTALLATION:

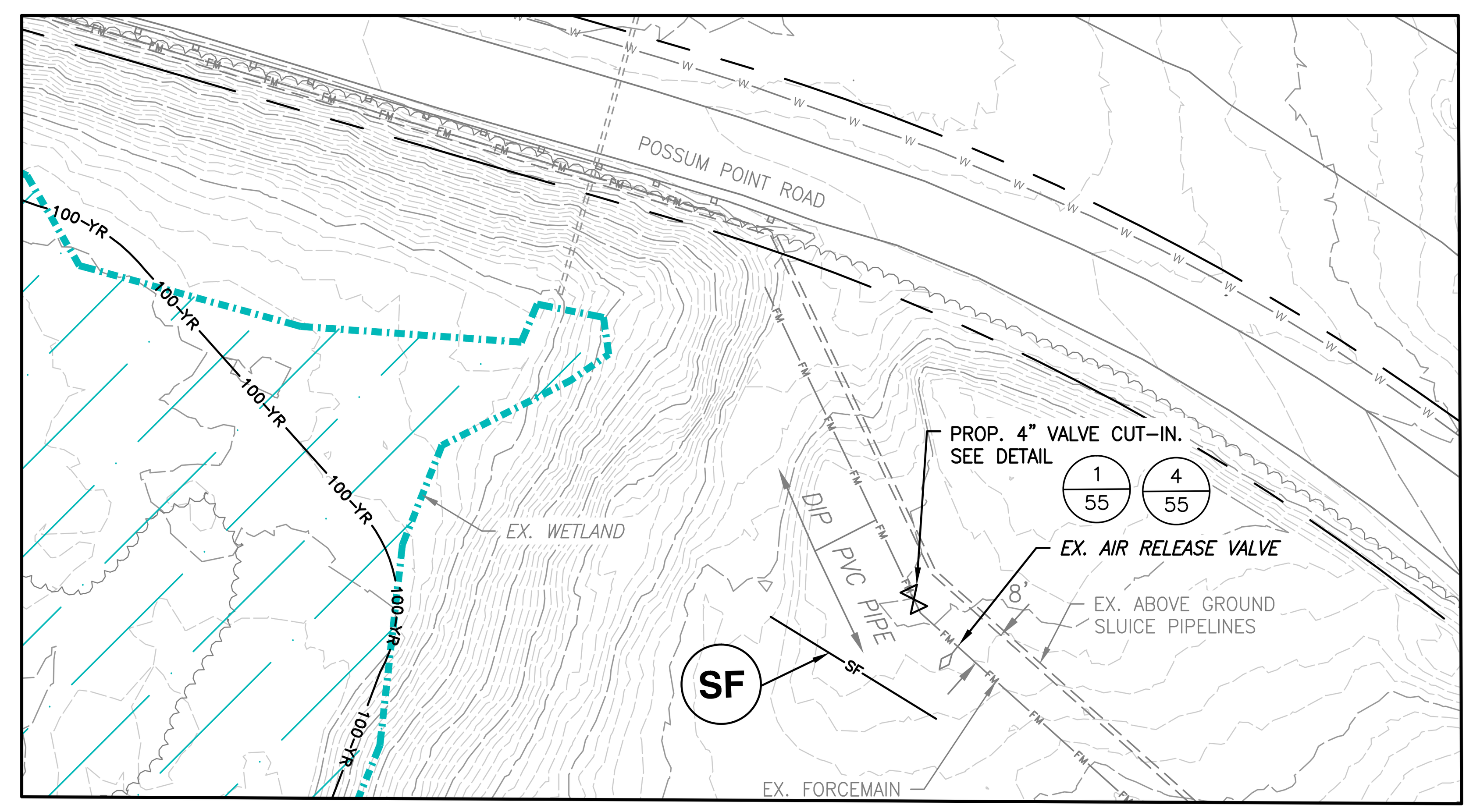
1. ALL BENDS/FITTINGS SHALL INCLUDE THRUST BLOCKING OR RESTRAINTS AT EACH PIPE AND FITTING JOINT AS REQUIRED IN THE THRUST BLOCK DETAILS AND RESTRAINED JOINT SCHEDULES. HOWEVER, RESTRAINTS AT EXISTING FORCEMAIN PIPE AND FITTING JOINTS (THAT ARE TO REMAIN AFTER PIPE ABANDONMENT) ARE REQUIRED PER THE RESTRAINED JOINT SCHEDULES TO BRACE THE FORCEMAIN DURING REMOVAL OF THE SECTION TO BE ABANDONED.
2. THE CONTRACTOR SHALL PERFORM AN APPROVED HYDROSTATIC PRESSURE TEST ON THE NEWLY INSTALLED FORCEMAIN IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
3. THE CONTRACTOR SHALL CORRECT ANY LEAKS IN THE NEWLY INSTALLED FORCEMAIN AND RE-TEST, AS NECESSARY, UNTIL AN ACCEPTABLE HYDROSTATIC PRESSURE TEST RESULT IS ATTAINED.
4. UPON COMPLETION OF AN ACCEPTABLE HYDROSTATIC PRESSURE TEST, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO RETURN THE SANITARY FORCEMAIN SYSTEM INTO OPERATION AND REMOVE ALL 'LOTO' DEVICES.
5. THE CONTRACTOR SHALL PLAN AND MAKE EVERY EFFORT TO COMPLETE THE FORCEMAIN TIE-INS AND MINIMIZE DOWNTIME TO 4 HOURS OR AS OTHERWISE AGREED IN ADVANCE WITH THE OWNER.
6. DETAILS ASSOCIATED WITH THE SANITARY SEWER FORCEMAIN RELOCATION ARE SHOWN ON SHEETS 53 AND 54.

D. FORCEMAIN MATERIALS:

1. PIPE SHALL BE GASKETED, PUSH-ON JOINT PVC PRESSURE PIPE IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
2. FITTINGS SHALL BE GASKETED, PUSH-ON JOINT PVC WITH RESTRAINT HARNESSES OR MECHANICAL JOINT DUCTILE IRON WITH WEDGE ACTION RETAINER GLANDS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. IN LIEU OF RETAINER GLANDS THRUST BLOCKS ARE ALSO ACCEPTABLE.



PROPOSED RELOCATED FORCEMAIN SEWERLINE PROFILE



NOTES:

1. LOCATION OF FORCEMAIN APPROXIMATED FROM AS-BUILT DRAWING FOR "POSSUM POINT POWER STATION SANITARY SEWER PUMP STA./FORCEMAIN". DRAWING NO. 9158A-BC-006, REV 1, DATED 05-SEPT-2002.
2. CONTRACTOR TO VERIFY LOCATION OF EXISTING FORCEMAIN SEWER AND AIR RELEASE VALVE.
3. CONTRACTOR SHALL INSTALL SILT FENCING AND OTHER EROSION AND SEDIMENT CONTROL BMPS AS NECESSARY DOWNGRADIENT OF THE WORK AREA PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
4. PROP. 4" VALVE CUT-IN TO BE LOCATED 15' DOWNSTREAM OF THE EXISTING AIR RELEASE VALVE. LOCATION OF PROPOSED VALVE TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

PROPOSED VALVE CUT-IN LOCATION PLAN

SCALE: 1" = 40'
40 0 40 80

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

GAI CAD FILE PATH: Z:\Energy\2015\C150132.00 – DOM – Possum Point PS CCB\CAD\Production Drawings\C150132-00-000-C-D1-010.dwg PLOTTED ON: 11/17/2015 2:24:24 PM PLOTTED BY: Michael Doyle PLOT FILE: GAI.stb

DRAWING TITLE

SANITARY SEWER RELOCATION PLAN - POND A,B,C CLOSURE

PROJECT

POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES DUMFRIES, VA

gai consultants

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY GLEN ALLEN, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA JOHN R. KLAMUT Lic. No. 048859 12/7/2015 PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.:	REVISION
10 OF 65	

GAI FILE NUMBER:

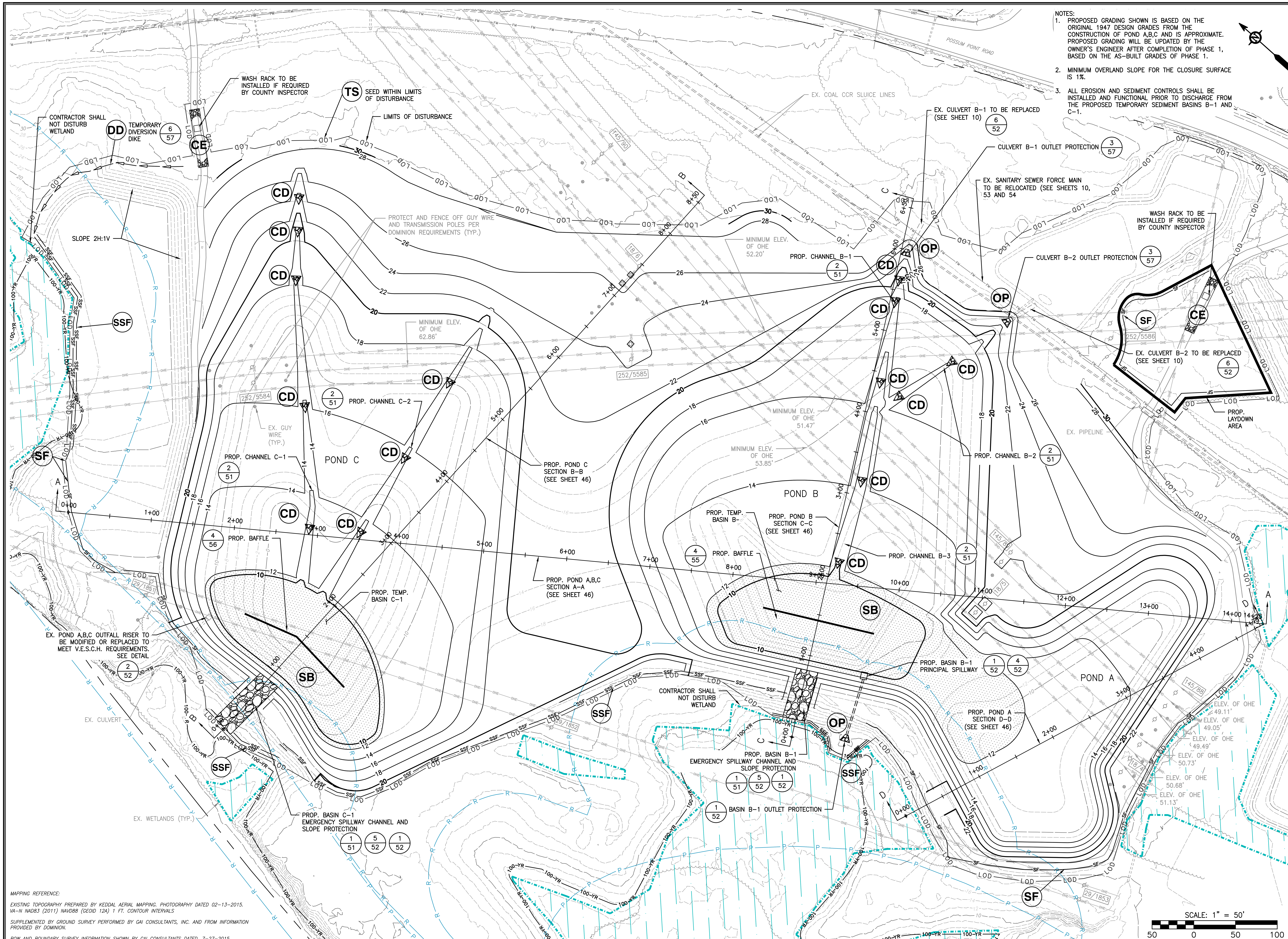
C150132-00-000-C-D1-010

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:

010

PERMIT



NOTES:
1. PROPOSED GRADING SHOWN IS BASED ON THE ORIGINAL 1947 DESIGN GRADES FROM THE CONSTRUCTION OF POND A,B,C AND IS APPROXIMATE. PROPOSED GRADING WILL BE UPDATED BY THE OWNER'S ENGINEER AFTER COMPLETION OF PHASE 1, BASED ON THE AS-BUILT GRADES OF PHASE 1.
2. MINIMUM OVERLAND SLOPE FOR THE CLOSURE SURFACE IS 1%.
3. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO DISCHARGE FROM THE PROPOSED TEMPORARY SEDIMENT BASINS B-1 AND C-1.
POSSUM POINT ROAD
EX. COAL CCR SLUICE LINES
WASH RACK TO BE INSTALLED IF REQUIRED BY COUNTY INSPECTOR
SEED WITHIN LIMITS OF DISTURBANCE
LIMITS OF DISTURBANCE
CONTRACTOR SHALL NOT DISTURB WETLAND
TEMPORARY DIVERSION DIKE
SLOPE 2H:1V
PROTECT AND FENCE OFF GUY WIRE AND TRANSMISSION POLES PER DOMINION REQUIREMENTS (TYP.)
MINIMUM ELEV. OF OHE 52.20'
MINIMUM ELEV. OF OHE 62.86'
MINIMUM ELEV. OF OHE 51.47'
MINIMUM ELEV. OF OHE 53.85'
EX. CULVERT B-1 TO BE REPLACED (SEE SHEET 10)
CULVERT B-1 OUTLET PROTECTION
EX. SANITARY SEWER FORCE MAIN TO BE RELOCATED (SEE SHEETS 10, 53 AND 54
CULVERT B-2 OUTLET PROTECTION
EX. CULVERT B-2 TO BE REPLACED (SEE SHEET 10)
PROP. LAYDOWN AREA
EX. PIPELINE
PROP. CHANNEL B-1
PROP. CHANNEL B-2
PROP. CHANNEL B-3
PROP. CHANNEL C-1
PROP. CHANNEL C-2
EX. GUY WIRE (TYP.)
POND C
POND B
POND A
PROP. POND C SECTION B-B (SEE SHEET 46)
PROP. POND B SECTION C-C (SEE SHEET 46)
PROP. POND A,B,C SECTION A-A (SEE SHEET 46)
PROP. POND A SECTION D-D (SEE SHEET 46)
PROP. TEMP. BASIN B-
PROP. TEMP. BASIN C-1
PROP. BAFFLE
EX. POND A,B,C OUTFALL RISER TO BE MODIFIED OR REPLACED TO MEET V.E.S.C.H. REQUIREMENTS. SEE DETAIL
EX. CULVERT
EX. WETLANDS (TYP.)
CONTRACTOR SHALL NOT DISTURB WETLAND
PROP. BASIN B-1 PRINCIPAL SPILLWAY
PROP. BASIN B-1 EMERGENCY SPILLWAY CHANNEL AND SLOPE PROTECTION
BASIN B-1 OUTLET PROTECTION
PROP. BASIN C-1 EMERGENCY SPILLWAY CHANNEL AND SLOPE PROTECTION
ELEV. OF OHE 49.11'
ELEV. OF OHE 49.05'
ELEV. OF OHE 49.49'
ELEV. OF OHE 50.73'
ELEV. OF OHE 50.68'
ELEV. OF OHE 51.13'
MAPPING REFERENCE:
EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS
SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.
ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015
SCALE: 1" = 50'
50 0 50 100

NO:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE

PHASE 2 GRADING PLAN - POND A,B,C CLOSURE

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 11 OF 65

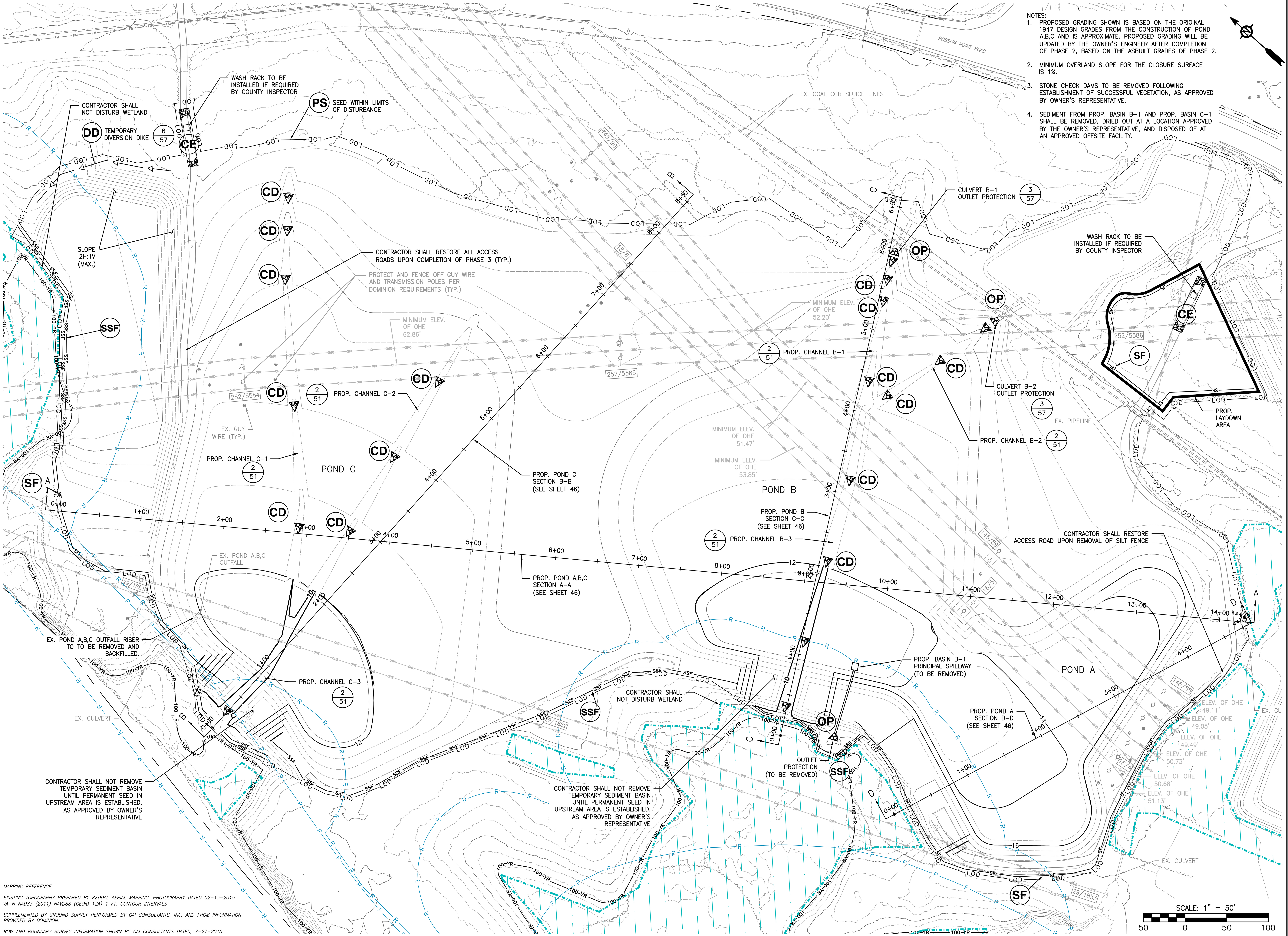
REVISION:

GAI FILE NUMBER: C150132-00-000-C-D1-011

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 011

PERMIT



POSSUM POINT ROAD
EX. COAL CCR SLUICE LINES
WASH RACK TO BE INSTALLED IF REQUIRED BY COUNTY INSPECTOR
SEED WITHIN LIMITS OF DISTURBANCE
CONTRACTOR SHALL NOT DISTURB WETLAND
TEMPORARY DIVERSION DIKE
SLOPE 2H:1V (MAX.)
CONTRACTOR SHALL RESTORE ALL ACCESS ROADS UPON COMPLETION OF PHASE 3 (TYP.)
PROTECT AND FENCE OFF GUY WIRE AND TRANSMISSION POLES PER DOMINION REQUIREMENTS (TYP.)
MINIMUM ELEV. OF OHE 62.86'
MINIMUM ELEV. OF OHE 52.20'
MINIMUM ELEV. OF OHE 51.47'
MINIMUM ELEV. OF OHE 53.85'
EX. GUY WIRE (TYP.)
PROP. CHANNEL C-1
PROP. CHANNEL C-2
PROP. CHANNEL C-3
PROP. CHANNEL B-1
PROP. CHANNEL B-2
PROP. CHANNEL B-3
CULVERT B-1 OUTLET PROTECTION
CULVERT B-2 OUTLET PROTECTION
POND C
POND B
POND A
PROP. POND C SECTION B-B (SEE SHEET 46)
PROP. POND B SECTION C-C (SEE SHEET 46)
PROP. POND A,B,C SECTION A-A (SEE SHEET 46)
PROP. POND A SECTION D-D (SEE SHEET 46)
EX. POND A,B,C OUTFALL
EX. POND A,B,C OUTFALL RISER TO TO BE REMOVED AND BACKFILLED.
EX. PIPELINE
PROP. LAYDOWN AREA
CONTRACTOR SHALL RESTORE ACCESS ROAD UPON REMOVAL OF SILT FENCE
PROP. BASIN B-1 PRINCIPAL SPILLWAY (TO BE REMOVED)
OUTLET PROTECTION (TO BE REMOVED)
CONTRACTOR SHALL NOT REMOVE TEMPORARY SEDIMENT BASIN UNTIL PERMANENT SEED IN UPSTREAM AREA IS ESTABLISHED, AS APPROVED BY OWNER'S REPRESENTATIVE
EX. CULVERT
ELEV. OF OHE 49.11'
ELEV. OF OHE 49.05'
ELEV. OF OHE 49.49'
ELEV. OF OHE 50.73'
ELEV. OF OHE 50.68'
ELEV. OF OHE 51.13'
SCALE: 1" = 50'
50 0 50 100

NOTES:

1. PROPOSED GRADING SHOWN IS BASED ON THE ORIGINAL 1947 DESIGN GRADES FROM THE CONSTRUCTION OF POND A,B,C AND IS APPROXIMATE. PROPOSED GRADING WILL BE UPDATED BY THE OWNER'S ENGINEER AFTER COMPLETION OF PHASE 2, BASED ON THE ASBUILT GRADES OF PHASE 2.
2. MINIMUM OVERLAND SLOPE FOR THE CLOSURE SURFACE IS 1%.
3. STONE CHECK DAMS TO BE REMOVED FOLLOWING ESTABLISHMENT OF SUCCESSFUL VEGETATION, AS APPROVED BY OWNER'S REPRESENTATIVE.
4. SEDIMENT FROM PROP. BASIN B-1 AND PROP. BASIN C-1 SHALL BE REMOVED, DRIED OUT AT A LOCATION APPROVED BY THE OWNER'S REPRESENTATIVE, AND DISPOSED OF AT AN APPROVED OFFSITE FACILITY.

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE

PHASE 3 GRADING PLAN - POND A,B,C CLOSURE

PROJECT

POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES DUMFRIES, VA

gai consultants

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY GLEN ALLEN, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

GAI CAD FILE PATH: Z:\Energy\2015\C150132\C150132.00 – DOM – Possum Point PS CCB\CAD\Production Drawings\C150132-00-000-C-D1-012.dwg PLOTTED ON: 11/17/2015 3:21:12 PM PLOTTED BY: Michael Doyle PLOT FILE: GAI.stb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
DOYLEMP	KINDEKW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 12 OF 65

REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-012

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 012

PERMIT